

ANNUAL PUBLIC HEALTH REPORT

OF THE

PROVINCE OF ASSAM

FOR THE YEAR

1925

BY

MAJOR T. D. MURISON, D.P.H., I.M.S.,
DIRECTOR OF PUBLIC HEALTH, ASSAM.



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FROM

MAJOR T. D. MURISON, D.P.H., I.M.S.,
DIRECTOR OF PUBLIC HEALTH, ASSAM,

TO

THE SECOND SECRETARY TO THE GOVERNMENT OF ASSAM.

Shillong, the 26th June 1926.

SIR,


I HAVE the honour to submit herewith the Annual Public Health Report of the Province of Assam for the year 1925.

Your obedient servant,

T. D. MURISON, *Major, I.M.S.,*
Director of Public Health, Assam.

ENCLOSURES :—

1 Report.
13 Statements.



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[Maximum limit of narrative portion of the report, 30 pages.]

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FOR THE YEAR

1925.



SECTION I.

METEOROLOGY.

The Director-General of Observatories has kindly furnished the following brief summary of the meteorological features of the Province of Assam during the year 1925 :—

The cold weather period, January and February.—The rainfall in January was associated with three western disturbances and was about 50 per cent. more than the normal. In February five western disturbances caused rainfall, but it was comparatively light and was, on the whole, below the average. Cloud amount was in excess and maximum temperature was lower than usual in January.

The hot weather period, March to May.—In March the weather was affected by three disturbances from Persia and one local disturbance from the Central Provinces. The rainfall due to them was in moderate defect. Rainfall occurred frequently in April and was widespread during the last week in consequence of an inflow of humid winds from the Bay under the influence of a depression, which formed over the south-west Punjab on the 23rd : Silchar recorded 5" on the 30th. The total amount was slightly above normal. The month of May was the wettest of the period, indeed, of the whole year. Rain fell daily during the first fortnight and on the majority of days during the second ; a spell of disturbed weather was introduced by a Bay cyclone between the 17th and 21st, causing some heavy falls of rain on the 19th. The aggregate of the month was in large excess. Skies were more clouded than usual in May, and less clouded in March. Maximum temperature was about 4° below normal in May.

The monsoon period, June to September.—During the first two months of the period, the monsoon was less active than usual over the province, and rainfall was in moderate defect in June and in slight defect in July. The monsoon then strengthened, and produced nearly the normal amount of rain in August and September. A noteworthy feature in August was that, owing to an abnormal distribution of pressure between the 9th and 12th, rainfall was concentrated along the Himalayas and caused floods in several rivers : the rise in the Brahmaputra resulted in an inundation of parts of Dibrugarh. The month of September was characterised by three spells of wet weather from the 1st to 3rd, from the 6th to 8th and from the 11th to 16th, under the influence of three depressions from the Bay : falls of 4" of rain were recorded at Gauhati on the 6th, and at Dhubri on the 13th. From the 17th onwards, the monsoon weakened gradually. Cloud, humidity and temperature were normal in each month of the period.

The retreating monsoon period, October to December.—In October, rainfall occurred mainly during the third week, when the weather was disturbed owing to a depression in the Bay of Bengal and another from the west. The total amount was slightly below the average. In November rain fell only occasionally and was in moderate defect. In December, dry weather prevailed, only 0.02" of rain being recorded against an average of 0.29". Cloud and humidity were normal during the period. Minimum temperature was considerably lower than usual in December.

The average price of common rice during the year was 7 seers per rupee against 7 seers and 1 chhatak obtainable for the same price in the preceding year.

Prices of food-grains and their connection with vital occurrences.

SECTION II.

EUROPEAN ARMY.

(No remarks.)

SECTION III.

NATIVE ARMY.

(No remarks.)

SECTION IV.

JAILS.

(No remarks.)

SECTION V.

GENERAL POPULATION.

Vital Statistics.

2. As in previous years, the report deals with the plains districts of the province the population of which according to the census of 1921 was 6,852,242. Registration in the hill districts is shown separately in paragraph 10 of this report.

General census figures. Provincial birth and death-rates. Comparison with other provinces.

The birth-rate per 1,000 of population for the province for the year 1925 was 29·08 as compared with 31·04 in 1924 and 28·34, the quinquennial average. It is compared below with the rates recorded in other Indian Provinces:—

Provinces.	Birth-rate.		
	1919-23.	1924.	1925.
1	2	3	4
Assam	28·34	31·04	29·08
Bengal	28·3	29·45	29·60
Bihar and Orissa	34·0	55·7	35·63
Central Provinces	38·56	44·18	43·90
Madras	28·8	34·89	33·71
Burma	30·50	27·40	25·38
Bombay	31·75	35·60	34·67
United Provinces	34·11	34·72	32·73
Punjab	40·5	40·05	40·1
North-West Frontier Province	*	27·0	26·86

* Not available.

The birth-rate of Assam was almost the same as that of the neighbouring province of Bengal but was lower than that of the provinces of Bihar and Orissa, Central Provinces, Madras, Bombay, United Provinces and Punjab.

The death-rate of the province for the year 1925 was 22·52, as compared with 27·30 in 1924 and 29·34, the quinquennial average. The death-rate of the province for the year is compared with the ratio recorded in other provinces:—

Provinces.						Death-rate.		
						1919-23.	1924.	1925.
1						2	3	4
Assam	...	...	...	...	...	29·34	27·30	22·52
Bengal	...	...	...	...	...	29·6	25·86	24·90
Bihar and Orissa	...	...	...	...	...	30·7	29·1	23·69
Central Provinces	...	...	...	...	...	37·44	22·59	27·27
Madras	...	...	...	...	...	22·5	24·53	24·40
Burma	...	...	...	...	...	24·26	21·54	18·75
Bombay	...	...	...	...	...	27·33	27·63	23·67
United Provinces	...	...	...	...	...	33·37	28·29	24·78
Punjab	...	...	...	...	...	27·4	43·43	30·0
North-West Frontier Province	...	...	...	...	...	*	31·0	19·81

* Not available.

The death-rate of the province for the year 1925 was lower than those of all other provinces except Burma and North-West Frontier Province. The death-rate for the year was as in all other provinces except the Central Province, lower than that of 1924.

3. The total number of births in the province during the year was 199,261 giving a ratio of 29·08 per 1,000 of the population, as compared with 212,755 and 31·04 for the year 1924, and 29·16, the mean for the preceding five years (1920-24). The natural increase of population by excess of birth-rate over the death-rate was 6·56 against 3·74 in the preceding year.

The highest district birth-rate (34·45) was recorded in Goalpara district and the lowest birth-rate (24·72) was recorded in Nowgong district. The birth-rate of the Nowgong district fell from 26·99 in 1924 to 24·72 in the year under report.

4. During 1925 the birth-rate for towns amounted to 30·46 per mille of population as compared with 31·23 in 1924, the number of births for the years being 4,545 and 4,659 respectively. In ten towns out of 23, the birth-rate was higher than the provincial average. The highest birth-rate (55·92) was, as usual, recorded in Barpeta and the lowest (15·71) in Hailakandi. Hailakandi is a small town with a population of 2,228 and its low birth-rate appears to be due to defective registration. The improvement in the registration in the small towns of Maulvi Bazar (22·49), Mangaldai (23·46) and Doom-Dooma (25·82) was maintained during the year.

5. The birth-rate in rural areas was 29·04 per mille as compared with 31·04 in the preceding year and 29·91, the quinquennial average.

Among rural circles considered individually the Bijni Duar circle in the Goalpara district reported the highest rate of 50·77 per mille. Other circles reporting rates above the provincial average for the year were 18 in Sylhet, 12 in Goalpara, 8 in Cachar, 4 in Kamrup, 3 in Darrang and 2 each in Sibsagar, Lakhimpur and

Nowgong. The lowest ratio (4.06) was recorded in Margherita, other low rates being Gohpur (7.62), Tezpur (13.27), Jamunamukh (13.46), Majuli (13.70), Boko (13.74) and Kalaigaon (14.09) due to defective registration.

6. The total number of deaths in the province during the year was 154,351 as compared with 187,127 in the previous year. The provincial death-rate for 1925 was 22.52 as compared with 27.30 in 1924 and 25.95, the quinquennial average (1920-24). The highest district death-rate was recorded in Goalpara (28.34) followed by Darrang (25.42), in both districts *kala azar* being endemic, and the lowest in Lakhimpur (18.33). The next lowest rate of 18.79 was recorded in Sibsagar. All districts except Nowgong and Sibsagar showed a decrease in death-rate as compared with 1924. The prevalence of cholera in Nowgong and of small-pox in Sibsagar accounted for a small increase of .88 in the death-rate in the former and of .81 in the latter. All districts showed a decreased rate when compared with the quinquennial average. The decrease in the death-rate is general under the head "fevers" which includes mortality from *kala azar*. It appears that the fall in the provincial death-rate of 4.78 below that of 1924 and of 3.43 below that of the quinquennium is partly due to the intensive treatment of *kala azar* and partly to the better health conditions due to more favourable meteorological factors which prevailed during the year. During the year under report 60,940 patients were treated for *kala azar*. Had it not been for the intensive treatment against *kala azar*, about 90 per cent. of the 60,940 patients treated would perhaps have died and thus would have very considerably increased the Provincial death-rate for the year under report.

7. The number of deaths registered in urban areas during the year 1925 was 3,525 as compared with 3,964 in 1924. The death-rate per mille of population in 1925 was 23.63, against 26.57 in 1924 and 23.48, the quinquennial average. The highest death-rate *viz.*, 33.46 was recorded in Habiganj, which also recorded the highest rate of 36.49 in the preceding year. There is a *kala azar* indoor hospital in this town in which *kala azar* patients in poor state of health from the subdivision are collected and treated, and deaths occurring among them are included in the death-rate of the town and this accounts for the high death-rate. The infant mortality of 331.55 per 1,000 of births in this town is high and indicates need for holding Baby Week and Child Welfare work. The attention of the Municipal Board will be drawn to this. Other towns recording high death-rates were Tezpur (30.78), Doom-Dooma (30.12), Gauhati (29.42) and Gauripur (28.07). The causes of high mortality were dysentery and respiratory diseases in the case of Tezpur and fevers in Doom-Dooma, Gauhati and Gauripur with respiratory diseases as an additional cause in the case of Doom-Dooma. Seven towns recorded rates below 20 per mille against five in the preceding year.

8. Deaths registered in rural areas during the year numbered 150,826 or 22.50 per 1,000 of the population against 183,163 with a ratio of 27.32 in the preceding year and 26.02 the average of the previous five years.

Rural circles reporting high death-rates were Panerihat (42.93) due to fevers, Udalguri (41.65) due to cholera, Bijni Duar (38.24) due to fevers, Golakganj (36.87) due to fevers, Sidli circles (35.12) due to fevers and cholera, Goalpara (32.17) due to fevers and cholera, Gauhati (32.04) due to small-pox and fevers, Jagi Road (31.99) due to cholera and fevers and Dudnai (31.27) due to fevers. In all these areas *kala azar* is endemic and is partly responsible for their high death-rate.

The following circles reported too low a death-rate apparently due to defective registration :—

Dhemji (10.57), Dhakuakhana (9.59), Majuli (7.79), Gohpur (7.39) and Margherita (4.75).

9. In the twenty-four Municipal towns where registration is compulsory 336 omissions were detected by Officers of the Vaccination Department, 322 prosecutions were instituted and 244 convictions were obtained. The average fine inflicted on each person convicted was Re. 1-0-0.

Registration in compulsory areas.

Prosecutions under Act IV (B.C.) of 1873.

The statement below shows the results of the enquiries conducted by the Vaccination Inspecting Staff in 1925 :—

Municipalities.	Unregistered vital occurrences detected during the year 1925.		Recorded vital occurrences during the year 1925.		Percentage of omissions.	
	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
1	2	3	4	5	6	7
Silchar ...	...	...	211	142	...	...
Hailakandi ...	...	1	35	26	...	3.70
Sylhet ...	6	6	482	366	1.23	1.61
Karimganj ...	16	7	76	83	17.39	7.78
Maulvi Bazar ...	3	...	72	29	4.00	...
Habiganj ...	1	...	186	198	.53	...
Sunamganj ...	7	11	145	113	4.60	8.87
Dhubri ...	21	13	222	173	8.64	6.99
Goalpara ...	9	11	190	119	4.52	8.46
Gauripur ...	39	8	110	113	26.17	6.61
Gauhati ...	9	7	575	478	1.86	1.44
Barpeta ...	11	2	645	319	1.68	.62
Tezpur ...	13	14	201	212	6.07	6.19
Mangaldai...	2	5	22	23	8.33	17.86
Nowgong...	15	3	220	180	6.38	1.64
Jorhat ...	...	...	200	131	...	...
Sibsagar ...	8	2	162	108	4.71	1.82
Golaghat ...	17	7	78	63	17.89	10.00
Nazira ...	6	1	91	58	6.18	1.69
Dibrugarh...	18	7	359	346	4.77	1.98
NorthLakhimpur	15	2	47	48	24.19	4.00
Doom-Dooma ...	...	...	30	35	...	...
Tinsukia ...	12	1	58	54	17.14	1.82
Shillong ...	...	...	552	239	...	...
Total ...	228	108	4,869	3,656	4.47	2.87

Registration in hill districts.

10. The subjoined table shows the recorded birth and death-rates in hill districts :—

Districts.	1925.		1924.	
	Birth-rate.	Death-rate.	Birth-rate.	Death-rate.
1		3	4	5
Khasi and Jaintia Hills ...	25.65	14.06	27.88	19.19
Naga Hills ...	16.10	19.65	17.82	21.47
Lushai Hills ...	48.12	26.55	44.63	28.98
Garro Hills ...	29.17	22.98	27.58	25.14

There was no epidemic in the Khasi and Jaintia Hills district, and as indicated by the decreased death-rate its health was satisfactory. The birth and death-rates of the Shillong Municipality were 32.03 and 13.89, respectively, as compared with 31.33 and 15.46, respectively, in 1924. Twenty-five cases of typhoid and 2 cases of diphtheria were reported from Shillong during the year. The usual precautions against the importation of typhoid through the milk-supply from surrounding villages were undertaken and a staff of Milk Inspectors was entertained by the Municipality.

In the Naga Hills district registration is confined to the town of Kohima and rural area of Dimapur whose combined population is 4,936 only. As in the previous year, the death-rate exceeded the birth-rate. Malaria is prevalent all over the district. Anti-malaria measures were carried out for seven months from the middle of April 1925 at Kohima which had a beneficial effect in reducing malaria.

The general health of the district of Lushai Hills was better than the preceding year as illustrated by the increased birth-rate and decreased death-rate. During the year there was no epidemic of cholera or small-pox in this district. Whooping cough was prevalent in this district and was largely responsible for mortality amongst infants. During the year the hill mauzas in the Garo Hills district were brought under registration. The ratio of the Garo Hills district therefore indicates the health conditions of the whole district instead of that of the plains portion of the district only as in previous years. The birth-rate of the district exceeded the death-rate by 6.19 and its general health was on the whole satisfactory. The chief cause of mortality was *kala azar* and malaria.

Registration in the Sadiya Frontier Tract is at present confined to the head-quarter town, one tea garden, two saw mills and some villages inhabited by Assamese. In the above areas 568 births and 475 deaths were recorded during the year as compared with 550 and 479, respectively, in the preceding year. The population of the areas in which registration is carried out is not available and therefore birth and death-rates cannot be calculated.

11. The appended statement shows the birth and death-rates reported from tea

Registration in gardens.

estates during the year 1925 :—

District.						Birth-rate.	Death-rate.
1						2	3
Cachar	...	...	...	...	...	31.08	19.59
Sylhet	...	...	...	...	...	29.52	17.85
Goalpara	...	...	...	...	...	24.04	16.85
Kamrup	...	...	...	...	...	10.67	16.39
Darrang	...	...	...	...	...	22.70	17.56
Nowgong	...	...	...	...	...	23.37	20.86
Sibsagar	...	...	...	...	...	29.00	17.32
Lakhimpur	...	...	...	...	...	26.19	21.44
Total						27.64	18.93

The total increase of population in tea estates during the year 1925 was 8.71 per mille or 2.15 in excess of the provincial rate, all districts contributing to the increase with the exception of Kamrup in which reporting continued to be defective.

A total of 129 deaths from *kala azar* were reported from tea estates during the year, those in Nowgong reporting 55, Darrang 44 and Sibsaagar, Sylhet and Kamrup each reporting 10. Garden authorities are fully alive to the necessity of treating any of their labour force suffering from *kala azar*.

12. The total number of births and deaths recorded within Railway limits in the year were 110 and 325, respectively, as compared with 98 and 417, respectively, in 1924. Of the 325 deaths, 27 were attributed to fevers, 64 to dysentery and diarrhoea, 90 to respiratory diseases, 24 to injuries and 120 to other causes.

Registration on railways.

13. The highest birth-rate of 3·38 per mille of population was recorded in the month of December and the lowest birth-rate of 1·87 in the month of May. The highest death-rate of 2·36 was recorded in the month of January in which cholera was prevalent in epidemic form in certain districts. The lowest death-rate of 1·52 was recorded in April.

14. As usual the mortality rate among infants under one year of age was higher than that of any other age groups and the lowest rate was recorded for the age periods between 10 and 15 years. As in previous years male deaths were higher than female deaths in the proportion of 115 to 100. The death-rates amongst different communities were in the following order:—Other classes 30·58, Muhammadans 22·51, Hindus 21·25, Christians 15·85 and Buddhists 12·16.

The infant mortality rate for the year 1925 was lower than that of any of the preceding five years as shown in the appended statement :—

Year.	Birth.			Deaths of infants.			Death-rates of infants.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10
1920 ...	98,370	92,465	190,835	19,948	15,847	35,795	202·78	171·38	187·57
1921 ...	105,395	97,758	203,153	21,174	16,864	38,038	200·90	172·50	187·23
1922 ...	100,433	94,465	194,898	21,268	17,361	38,629	211·76	183·78	198·20
1923 ...	101,861	95,657	197,518	19,367	16,089	35,456	190·13	168·19	179·50
1924 ...	110,107	102,648	212,755	21,636	17,671	39,307	196·49	172·15	184·75
1925 ...	103,009	96,252	199,261	19,009	5,733	34,742	184·53	163·45	174·35

In the table below the infant mortality rate of Assam is compared with that of other provinces from which it will be seen that the Assam rate is higher than that of three provinces of Bihar and Orissa, Bombay and North-West Frontier Province only :—

Assam	...	...	...	...	174·35
Bengal	...	...	...	...	179·05
Bihar and Orissa	...	...	...	...	137·66
Central Provinces	...	...	...	...	204·44
Madras	...	...	...	...	180·94
Burma	...	...	...	...	188·99
Bombay	...	...	...	...	165·97
United Provinces	...	...	...	...	175·51
Punjab	...	...	...	...	187·71
North-West Frontier Province	...	...	...	...	139·13

Since the close of the year magic lantern demonstrations on Child Welfare work are being given in villages and suitable illustrative pamphlets are being distributed. A Baby Week is also being held in several towns, and it is hoped that when the need for such action is generally realised it will still further reduce infant mortality.

15. The vaccination inspecting staff checked 63,670 entries of births and deaths in 4,626 villages and detected 2,971 omissions in 1925 as compared with 52,014 entries checked and 2,967 omissions detected in 1924. The percentage of omissions was 4·66 against 5·70 in the preceding year. The percentages of omissions of 12·73 and 12·43 in Goalpara and Kamrup, respectively, were very high.

16. There was no change in the agency for the collection and registration of vital statistics. The experiment under which four rewards of Rs. 20 each are granted to selected gaonburas in each subdivision continued in Kamrup, Darrang, Nowgong and Lakhimpur districts.

Under Government Notification No. 900-E., dated the 29th February 1924, the number of cases and deaths from cholera, small-pox, influenza and plague is obtained weekly from Civil Surgeons. These statistics are tabulated, printed and circulated to those concerned who are thus notified as to the actual state of epidemics in the province.

SECTION VI.

HISTORY OF CHIEF DISEASES.

17. The annexed statement compares the ratios under the chief heads of mortality in the year 1925 with the mean ratios of the preceding decennium :—

Diseases.	1915-24.			1925.		
	Urban.	Rural	Combined.	Urban	Rural.	Combined.
1	2	3	4	5	6	7
Cholera	1·39	2·25	2·24	·39	·92	·90
Small-pox	·41	·39	·39	·32	·40	·40
Plague ... ..	...	...	...	...	...	...
Fevers	6·89	16·99	16·77	7·96	14·44	14·30
Dysentery and diarrhœa	3·31	1·86	1·89	3·49	1·29	1·34
Respiratory diseases	3·53	2·26	2·29	2·65	·77	·81
Injuries	·51	·29	·29	·65	·27	·28
All other causes	7·32	5·17	5·22	8·15	4·38	4·46
Total	23·37	29·24	29·12	23·63	22·50	22·52

The general urban mortality remained almost at the same level as the decennial average, but that under cholera was much reduced due perhaps to the improvement and protection from contamination of water-supplies and to improvement in conservancy. As regards mortality in rural areas a distinct improvement is noticeable under “cholera”, “fever” and “Respiratory Diseases”. Two mobile Epidemic Units which were sanctioned during the year, played an important part in staying the ravages of cholera which broke out in epidemic form in some districts. Extensive measures for the treatment of *kala azar* which have been carried out since 1920 have contributed much to the steady decrease in the mortality under the head “Fevers”.

INFLUENZA.

A total of 103 deaths from influenza was recorded during the year as compared with 169 in the year 1924. No epidemic of the disease was reported apart from mild local outbreaks in the districts of Sibsagar, Sadiya Frontier Tract, Lushai Hills and Lakhimpur.

18.—CHOLERA.

							Death-rates per mille.	
Districts.							1915-24.	1925.
Cachar ... ..	...	...	...	...	...	...	2·47	·46
Sylhet ... ..	...	...	...	...	...	...	2·41	·74
Goalpara ... ..	...	...	...	...	...	...	·96	·56
Kamrup ... ..	...	...	...	...	...	...	3·77	1·37
Darrang ... ..	...	...	...	...	...	...	2·83	1·90
Nowgong ... ..	...	...	...	...	...	...	2·29	3·59
Sibsagar ... ..	...	...	...	...	...	...	1·17	·22
Lakhimpur ... ..	...	...	...	...	...	...	·62	·21
Total ... ..	...	...	...	...	...	...	2·24	·90

The ratio of mortality from cholera during the year was ·90 as compared with 2·24 the decennial average. The district of Nowgong suffered most from cholera during the year. The disease broke out twice in epidemic form in Nowgong and affected almost the whole of the district, especially the areas adjacent to the banks of the Kallang river and also an area in the north-west of the district. The first outbreak occurred in June and July and the second one from October to December. Both Epidemic Units consisting of 6 Sub-Assistant Surgeons and 13 disinfection carriers were employed under the supervision of the Assistant

Director of Public Health, Assam. The special feature of preventive measures undertaken was the inoculation of all contacts with cholera vaccine. This had a marvellous effect in arresting the disease. All sources of water-supply were disinfected with bleaching powder and potassium permanganate. Certain streams from which the people of the infected villages drew their water-supplies were infected and this rendered preventive measures very difficult. Under these circumstances inoculation proved to be our mainstay and was of the greatest value.

The epidemics in Darrang, Kamrup and Sylhet which were not so virulent responded to inoculation and disinfection of water-supplies.

A total of 1,03,930 c.c. of cholera vaccine was issued during the year, of which 22,310 c.c. was supplied to Local and Municipal Boards. The initial information as regards outbreaks of cholera now reaches the Department much earlier and consequently it is now possible to undertake preventive measures much more promptly. The rules regulating the system of reporting of epidemics is now under revision in order to make them more effective.

During the year two epidemic units, each consisting of 3 Sub-Assistant Surgeons and 6 disinfectant carriers was sanctioned for dealing with epidemics. They were of the greatest value in fighting epidemics, especially cholera. Two units have proved to be quite inadequate and proposals for increasing their number are under consideration.

Red Cross pamphlets on cholera dealing with the method of spread of infection and how best it can be avoided were obtained and distributed. Magic Lantern demonstrations with suitable slides were also given by the Assistant Surgeons on *kala azar* duty. These pamphlets are also being read in primary schools, where they will have a far-reaching effect.

19. Among towns, Goalpara (2·09), Nowgong (1·59) and Karimganj (1·09) recorded high death-rates from cholera. None of them has a controlled water-supply and it is probable that infection from the neighbouring rural areas was introduced into them.

In rural areas the high rates were shown by the following circles in Nowgong district, Jagi road (7.08), Kaliabor (6.32) and Nowgong (5.62). In Darrang district high rates were in Udalguri (13.26), Kalaigaon (3.79) and Mangaldai (3.34). In Kamrup district high rates were in Palasbari (8.46) and Chhoygaon (4.35). The water-supplies in these areas should be improved by the local bodies concerned.

20. A total of 652 deaths from cholera was reported from tea estates during the year yielding a ratio of .71 per mille as compared with 1,361 and 1.48, respectively, in 1924. The highest rate of 1.07 was reported from Cachar followed by Sylhet which recorded the next highest rate of .88. As usual all tea-garden immigrants recruited during the year were inoculated with anti-cholera vaccine at their recruiting depôts.

21.—SMALL-POX.

[illegible]

The provincial death-rate from small-pox during the year was nearly the same as the decennial average. The highest death-rate of 2·16 per mille was recorded in the Sibsagar district. The disease prevailed and is still persisting in severe epidemic form throughout this district, the infection being most heavy in the Golaghat subdivision. Vaccinations and revaccinations are being carried out as vigorously as possible in face of much opposition. Vaccination was made compulsory in a number of mauzas and in Golaghat town. Under the regulations framed under the Epidemic Diseases Act which were published with Local Self-Government Department Notification No. 1873L. S.-G., dated 11th May 1925, these areas were declared to be infected with small-pox. As a result of this a large number of persons were compelled to take vaccination. The District Officers recommend that as a large number of people of the district are averse to vaccination, it is desirable that the whole of the district be notified as small-pox infected under the above regulations including in the regulations provisions for compulsory revaccination.

The death-rate of the Kamrup district fell from 1·02 in 1924 to ·66 in 1925. In this district too a certain section of the people are opposed to vaccination. Preventive measures have been taken by deputing an inspecting staff to the affected localities who explained to the people the advantages of vaccination. All reports of opposition from villages were promptly sent to the Deputy Commissioner. One of the big villages in which opposition is rife was declared as small-pox infected in the terms of the regulations quoted above.

There are small-pox isolation hospitals at Shillong, Gauhati, Dhubri and Tezpur Municipal towns. In the case of other Municipal towns there is generally an isolation shed attached to the Charitable Dispensary in which such cases are segregated, but in some towns there is no arrangements for isolation at all and patients are treated in their own houses. There is a provision for compulsory notification of small-pox cases in the Assam Municipal Act, but that section is not in operation in most of the towns. Complete information for the year 1925 as to the number of patients treated in special isolation hospitals or in isolation sheds attached to dispensaries and their vaccinal condition is not available as the instructions reached Civil Surgeons in the latter part of the year.

The available information is given in the annexed table :—

Municipal towns.			Number of small-pox patients treated.	Vaccinated as evidenced by presence of one or more vaccination cicatrices.	Stated to have been successfully vaccinated, but no vaccination cicatrices present.	Stated to have been vaccinated (or vaccinated unsuccessfully) and no vaccination cicatrices present.	Previously unvaccinated but vaccinated during incubation of small-pox.	Stated to have been successfully vaccinated.
1			2	3	4	5	6	7
Karimganj	...	...	1	Information not available.				
Dhubri	...	...	5	1	4	...	...	...
Gauhati	...	...	5	4	...	1	...	...
Tezpur	...	...	1	1	...	...	...	...
Newgong	...	...	3	1	...	2	...	...
Jorhat	...	...	2	2	...	...	...	...
Sibsagar	...	...	1	1	...	...	...	...
Nazira	...	...	2	2	...	...	...	...
Shillong	...	...	2	1	...	1	...	...

22. The highest mortality rate in an urban area was 3·83 in Golaghat town followed by Nazira 2·28. Both are in the Sibsagar district in which the disease was prevalent in severe epidemic form. There is no segregation hospital in either of these towns nor is notification enforced. In rural area circles

High rates of mortality from small-pox in individual towns in rural areas.

Dergaon (13·30), Golaghat (6·49), Majuli (3·35), Titabor (2·69), Nazira (2·57), Jorhat (1·89) and Bokakhat (1·66) all in Sibsagar district and Gauhati (3·01) and Hajo (2·64) in Kamrup district reported a high rate. Twelve towns and 42 rural circles were free from the disease during the year.

23.—FEVERS.

Districts.							Death-rate per mille.	
							1915-24.	1925.
1							2	3
Cachar	...	...	...	...	...	...	15·01	9·76
Sylhet	...	...	...	...	...	...	16·83	14·32
Goalpara	...	...	...	...	...	...	26·92	25·77
Kamrup	...	...	...	...	...	...	17·67	14·24
Darrang	...	...	...	...	...	...	16·06	15·07
Nowgong	...	...	...	...	...	...	16·74	15·00
Sibsagar	...	...	...	...	...	...	11·82	9·65
Lakhimpur	...	...	...	...	...	...	11·16	8·68
Total							16·77	14·30

The death-rate from fevers during the year 1925 was 14·30 as compared with 16·52 in 1924 and a decennial average of 16·77. There was a decrease in all districts both as compared with the rates of 1924 and the decennial average, the decrease of 5·25 being most marked in Cachar. The highest mortality rate from fevers was recorded in the district of Goalpara (25·77) in which *kala azar* is very prevalent and the lowest in Lakhimpur (8·68) which is least affected by *kala azar*.

MALARIA.

Anti-malaria work is entirely a matter of funds but something might be done by palliative measures such as jungle clearing, oiling and opening up of water channels. An account of such work done in the year is given below. Prophylactic quinine is sold at below market price throughout the province. To make it available to cultivators and poor people for self-treatment, the price of 20 four-grain tablets of sulphate of quinine which constitutes a complete course of treatment for an attack of malaria has been reduced from annas nine to annas six during the year.

Anti-malarial measures were continued at Pasighat, Lumding and Haflong and for the first time undertaken at Kohima during the year.

At Pasighat jungle clearing and oil spraying were carried out as in preceding years and in addition a large strip of jungle on the west bank of the Mora Lalli stream was newly cleared. The bed of the stream was kept clean and oil sprayed during the rains and hot weather by the drip-can method. The whole of the station within the limits of Mora Lalli is now quite clear of jungle.

The statistics of malaria cases treated during the year as compared with the preceding year show the great improvements that have been effected :—

					Percentage of political coolies treated in		Percentage of 2nd Assam Rifles men treated in	
					1924	1925	1924	1925
1					2	3	4	5
January	...	...	...	...	17.2	2.94	4.20	1.10
February	...	...	...	...	8.3	0.00	5.08	1.12
March	...	...	...	...	9.0	0.00	8.03	0.00
April	...	...	...	...	7.3	2.77	4.46	0.00
May	...	...	...	...	2.7	5.00	11.60	2.52
June	...	...	...	...	50.0	2.17	24.35	4.16
July	...	...	...	...	22.2	3.50	24.24	4.84
August	...	...	...	...	30.2	3.45	25.68	3.84
September	...	...	...	...	7.6	3.33	13.63	2.81
October	...	...	...	...	7.5	7.40	5.55	3.47
November	...	...	...	...	18.2	11.11	2.56	7.37
December	...	...	...	...	0.0	9.75	1.05	4.06
Total					15.0	4.10	10.9	3.25

At Lunding operations were carried out on the same lines as in previous years. The general condition of some of the important breeding places was improved. The river Haru-Langfer is reported to be the only really serious breeding ground of carrier anopheline species as *A. Listoni* and *A. Culicifacies* were found there on several occasions. All breeding places were treated with a mixture of crude oil and castor oil. Cinchona was used with good results. One thousand six hundred and eighty cases of malaria were treated during the year as compared with 2,419 in 1924.

At Haflong a gang of men are employed to remove all undergrowth on edges of drains and sprinkle kerosine oil where there is a collection of water. Their duty is also to cut down all rank vegetation within the station. The edges of lakes were kept free from overhanging grasses and weeds and covered with a film of kerosine oil, to prevent mosquitos breeding there. The District Civil Surgeon supervises the work of the staff once a month.

The Doom-Dooma Tea Company in the Lakhimpur district carried out with good results an anti-malarial work in their gardens under skilled supervision. Other estates in that district are also considering the question of initiating anti-malarial schemes.

During the year anti-malarial measures comprising the following items of work at a cost of Rs. 4,050 were carried out in Kohima town, (1) cutting of all jungle in the station within a certain radius, (2) daily oiling of all streams, (3) opening up of all sluggish water channels and (4) bunding up of all seepage collection of water and oiling of surfaces so obtained. The scheme was taken into operation on 15th April 1925. A staff of 2 sardars and 30 local coolies was engaged and was housed in three huts so as to be near the scene of their work. The station was in course of seven months completely cleared from within $\frac{1}{4}$ mile of its western cart road end to the foot of the eminence of Kohima Naga village hill. It is at this end of the station that the jungle clearing could not be thorough on account of the vested rights of the Nagas of Kohima village whose land is contiguous and had to be left untouched, though 2 platoons of the Assam Rifles located here suffered more than the other ranks of the Battalion, *viz.*, Platoons 9 and 10. Cutting down of as much scrub as was permitted in that direction

with other prophylactic measures taken undoubtedly helped in controlling the disease. With the exception of barracks of platoon 9 and 10 where 2 specimens of the *A. Maculapemis* were found, most of the flying insects caught were either *Culex* or other gnats. Collections of larvæ from rice fields and pools were hatched out but all proved to be of the *Culex* variety. During the year only one of the European Officers of the Assam Rifles suffered from malaria of the Benign Tertian type. His residence is situated low down on an easterly spur that overhangs a low valley. Special attention was paid to the clearance of jungle in its vicinity and the officer escaped further attacks of fever.

Admissions for malaria at Kohima during the last five years are given below :—

—				1921.	1922.	1923.	1924. *	1925. *
1				2	3	4	5	6
Kohima Charitable Hospital	Indoor	...	...	181	261	177	165	133
	Outdoor	...	...	2,224	3,841	4,805	2,127	2,795
Assam Rifles Hospital	Indoor	...	...	267	534	314	340	277
	Outdoor	...	...	461	1,429	498	255	170

(* Jungle cutting was carried out by men of Assam Rifles in 1924 and in 1925 by special Malaria squad of coolies.)

24. The provincial urban and rural average death-rates from fevers for the year were 7.96 and 14.44 respectively. Among towns, Mangaldai (16.62), Nazira (15.96), Gauripur (15.54) and Doom

High rates of mortality from fevers in individual towns and rural areas.

Dooma (15.49) reported high rates. There is no Medical

Officer of Health in any of these small towns and it is

therefore probable that deaths due to other diseases having fever as a symptom were erroneously included under this head. As regards individual rural circles, Bijni Duar (37.02) and Golakganj (35.13) in Goalpara and Kalaigaon (33.76) and Panerihat (31.72) in Darrang reported high rates. In all these rural circles *kala azar* is endemic and is partly responsible for the high rates.

25.—KALA AZAR.

The number of deaths from kala azar.

District.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.
1	2	3	4	5	6	7	8	9	10	11
Cachar ...	...	1	4	3	5	1	...	4	2	3
Sylhet ...	63	31	34	7	26	183	275	841	1,874	2,109
Goalpara ...	106	153	313	311	602	557	253	442	309	453
Kamrup ...	277	287	564	423	931	755	450	976	1,152	1,120
Darrang ...	320	245	263	171	256	169	202	289	448	478
Nowgong ...	451	591	565	559	846	1,172	933	1,291	1,479	1,445
Sibsagar ...	28	181	235	168	114	121	128	289	235	200
Lakhimpur ...	3	1	3	5	...	3	4	13	13	8
Khasi and Jaintia Hills	...	...	...	...	...	...	...	...	...	8
Naga Hills	...	...	...	...	...	...	...	...	...	1
Garo Hills	6	18	22	20	18	26	47	54	69	435
Sadiya Frontier Tract	...	...	...	...	...	...	...	2	4	3
Manipur State	...	...	...	...	...	...	...	...	...	2
Total ...	1,254	1,508	2,003	1,667	2,798	2,987	2,292	4,131	5,585	6,363

The number of Kala azar cases treated.

District.				1920.	1921.	1922.	1923.	1924.	1925.
1				2	3	4	5	6	7
Cachar	...	...	...	75	316	210	332	253	442
Sylhet	...	...	...	158	2,837	5,148	9,278	16,516	20,934
Goalpara	...	...	...	1,569	2,500	2,731	4,176	5,016	6,003
Kamrup	...	...	...	2,402	3,491	2,700	4,098	5,780	8,758
Darrang	...	...	...	378	1,360	1,229	2,416	3,286	5,262
Nowgong	...	...	...	1,816	4,343	5,934	11,847	13,625	13,895
Sibsagar	...	...	...	659	875	1,307	2,143	2,929	3,285
Lakhimpur	...	...	...	9	22	12	68	81	99
Khasi and Jaintia Hills	...	...	...	54	52	59	120	274	213
Naga Hills	...	...	...	...	...	...	4	3	4
Garo Hills	...	...	...	43	84	329	589	985	1,952
Sadiya Frontier Tract	...	...	...	...	...	...	...	...	8
Manipur State	...	...	...	...	...	...	...	22	85
Total				7,188	15,880	19,659	35,071	48,770	60,940

The number of deaths from *kala azar* recorded during the year was 6,365 as compared with 5,585 in the preceding year. The recorded deaths from *kala azar* in the districts of Sylhet, Goalpara and Garo Hills were higher than that of the preceding year. The heavy increase from 69 to 535 deaths in the Garo Hills is due to the extension of the registration to the hill mauzas during the year, indicating that the disease is more prevalent in the hill than in the plains part of the district. The number of *kala azar* patients treated during the year rose from 48,770 in 1924 to 60,940 in 1925. The percentage of deaths to the total treated was 10.44. If the 60,940 patients remained untreated, 90 per cent. of them or 54,846 persons would have died and inflated the death-rate. The provincial organisation for the treatment of *kala azar* remained almost the same as in the previous year. As in the previous year 6 special Assistant Surgeons and 110 Sub-Assistant Surgeons, the number of the latter being raised from 81 in 1924, were on *kala azar* duty, and as usual all Sub-Assistant Surgeons whether in charge of Special *kala azar* dispensaries, State or Local Board dispensaries visited and revisited villages within a radius of five miles of their dispensaries in search of fresh cases and all cases detected were brought under treatment.

The number of stopped treatment cases is showing a tendency to decline partly due to the shorter course of treatment with organic compound of antimony, named Urea Stibamine introduced during the year and also to Magic Lantern demonstrations in which the danger of stopping treatment before complete cure is effected is fully explained. Stopped treatment cases are still very high. A partially treated *kala azar* patient continues to be infectious to others and it is the duty of all educated people to induce such patients to undergo a complete course of treatment for the good of the community. A pamphlet written in simple language and in a conversational style in which it is laid down that treatment should be continued till cure is effected is being read in primary schools and is being distributed to the general public. Publicity in

this manner should show good results. Since the close of the year a pictorial poster displaying the figures of a patient before and after treatment has been printed and is being exhibited in all public places.

As in previous years all Sub-Assistant Surgeons surveyed *kala azar* infected villages within a radius of five miles of their respective dispensaries and for the areas not so covered, special Sub-Assistant Surgeons were placed on survey duty. As previously the treatment of outdoor patients was carried out by means of Sodium Antimony Tartrate supplied by Burroughs Welcome and Company. Since August 1925 in all special *kala azar* hospitals and hospitals at the district and subdivisional headquarters all *kala azar* patients are being treated with an organic compound of antimony called Urea Stibamine. The use of Urea Stibamine was further extended later in the year to 10 per cent. of outdoor patients attending at the indoor hospitals. The great advantage of Urea Stibamine over Sodium Antimony Tartrate is that it shortens the course of treatment from about three months to about one month. The price of the former drug is at present too high to allow of its employment generally. Further extension of the use of this drug in so far as this is possible with the money available is under consideration. All Assistant Surgeons and Sub-Assistant Surgeons ordered to administer Urea Stibamine were trained in the technique of administration of the drug at the Pasteur Institute.

In the Cachar district no newly infected villages were discovered during the year. The Moibang in-door hospital for *kala azar* patients worked satisfactorily. In Sylhet 4 paying wards have been added to the *kala azar* hospital at Habiganj, raising the total in-door accommodation to 34 beds. A special ward of 12 beds has been provided in the sadar hospital. The hospital at Shatiajuri was closed. There are in the Sylhet district 38 special *kala azar* dispensaries with 61 sub-centres in addition to the usual Local Board dispensaries and 3 dispensaries with 6 sub-centres run by the *Kala azar* Relief Association.

In the Goalpara district 3 new centres for treatment were opened and one was closed. Two Forest Department dispensaries have been equipped for the purpose of treating *kala azar* patients during the year. On survey Khetri mauza in the Kamrup district was found to be heavily infected. A survey of the Barpeta subdivision shows that the infection in it is milder than in the Gauhati subdivision. New foci of infection in Tapachamti village in Barkhetri mauza, Bihdia in Korua mauza and Kamarkuchi village in Upper Sorbhog mauza have been detected and arrangements for treatment in these areas have been made. In Darrang there is one *kala azar* ward at Tezpur and seven out-door dispensaries for treatment of *kala azar* patients. In the Nowgong district proposals for the establishment of 3 new treatment centres have been sanctioned during the year. The railway hospital at Lumding continued to treat both railway employes and outsiders. A resurvey of the whole of the Sibsagar district with the exception of the Mikir Hills was carried out during the year and 75 villages in the Sibsagar subdivision, 56 in the Jorhat subdivision and 117 in the Golaghat subdivision have been found to be lightly infected. The Mikir Hills will be surveyed as soon as a Naga or a Khasi Sub-Assistant Surgeon is available for the work. In the Lakhimpur district a Sub-Assistant Surgeon has been surveying the villages in the North Lakhimpur subdivision. A total of 69 fresh cases were brought under treatment in the Lakhimpur district. All cases appear to be sporadic and no heavy infection has been discovered in any part of this district. In the Garo Hills a proposal to extend the hospital at Tura is under consideration. Owing to the scarcity of Garo Sub-Assistant Surgeons, out-door treatment in this district gives no promise of success and the only alternative is to enlarge the in-door hospital at Tura and insist on cases from the mofussil being brought into Tura for treatment. It is hoped that the shorter treatment with Urea Stibamine will attract Garos to the hospital.

In the Sadiya Frontier Tract, of the nine patients treated, eight were imported from other districts and one who is a native of the district was infected in the Nowgong district. In the Naga Hills district four cases were detected in Dimapur and all of them have been brought under treatment.

The very valuable and most interesting researches of the *Kala azar* Commission have brought to light the fact that the sand fly (*Phlebotomus*) plays an important part in the propagation of *kala azar*.

26.—DYSENTERY AND DIARRHŒA.

District,	Death-rate per mille.	
	1915-24.	1925.
1	2	3
Cachar	2.26	1.78
Sylhet	1.75	1.27
Goalpara ... ..	.32	.35
Kamrup ... ..	.84	.64
Darrang	2.84	2.40
Nowgong	1.10	.65
Sibsagar	3.11	1.92
Lakhimpur	3.63	2.26
Total ...	1.89	1.34

There has been a decrease in the death-rate from both dysentery and diarrhœa as compared with the rate of the preceding year (1.62) and with the decennial average (1.89).

The death-rate from the same cause in tea estates was 3.54 in 1925 as compared with 4.23 in 1924. There was a decrease in the death-rate from dysentery and diarrhœa in tea estates in all districts with the exception of Darrang in which it rose slightly from 2.79 in 1924 to 3.65 in the year under report. This shows that conservancy and water-supply arrangements in tea estates are being gradually improved.

27. No case of plague was reported during the year.

28.—OTHER CAUSES.

The death-rates from "Respiratory diseases", "Injuries" and "All other causes" were .81, .28 and 4.46 in 1925 as compared with .98, .29 and 4.84 in the preceding year.

SECTION VII.

VACCINATION.

(Published separately.)

SECTION VIII.

SANITARY WORKS—MILITARY.

(No remarks.)

SECTION IX.

SANITARY WORKS—CIVIL.

General.

29. There were seventeen Municipal Boards and eight small towns in the province in the year 1925.

30. The aggregate income including the opening balances of seventeen Municipal, Boards and eight small towns amounted to Rs. 10,91,609 in 1925 as compared with Rs. 10,41,891 in 1924. The total expenditure on public health was Rs. 4,29,203 representing 39.32 per cent. of the total receipts.

Municipal expenditure on sanitation.

The percentage of expenditure on public health in Municipalities and small towns was in the following order:—

1. Gauhati Municipal Board	...	...	...	55.96
2. Tinukia small town	...	...	...	55.36
3. Shillong Municipal Board	...	...	...	48.37
4. Goalpara ditto	...	...	...	45.07
5. Silchar ditto	...	...	...	44.39
6. Jorhat ditto	...	...	...	43.71
7. Sylhet ditto	...	...	...	42.87
8. Dhubri ditto	...	...	...	42.41
9. Tezpur ditto	...	...	...	40.40
10. Dibrugarh ditto	...	...	...	36.99
11. Doom-Dooma small town	...	...	...	36.45
12. Palasbari ditto	...	...	...	34.66
13. Habiganj Municipal Board	...	...	...	33.77
14. Gauripur small town	...	...	...	32.38
15. Maulvi Bazar Municipal Board	...	...	...	27.34
16. Karimganj ditto	...	...	...	26.98
17. Sunamganj ditto	...	...	...	26.02
18. Nowgong ditto	...	...	...	24.95
19. Hailakandi small town	...	...	...	23.82
20. North Lakhimpur small town	...	...	...	23.35
21. Barpeta Municipal Board	...	...	...	22.25
22. Sibsagar ditto	...	...	...	21.20
23. Golaghat ditto	...	...	...	18.72
24. Mangaldai small town	...	...	...	8.70
25. Nazira ditto	...	...	...	6.75

The table below shows the expenditure incurred in 1925 as compared with that of 1924 under the different heads:—

Heads of expenditure.	Total expenditure.		Difference.	
	1925.	1924.	Increase.	Decrease.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
1. Conservancy including establishment, road watering, latrines, etc.	2,30,449	2,40,509	...	10,060
2. Drainage ...	20,257	19,250	1,007	...
3. Water-supply ...	1,39,239	1,22,004	17,235	...
4. Disposal of the dead ...	907	554	353	...
5. Markets and slaughter houses ...	17,228	13,942	3,286	...
6. Vaccination ...	3,967	4,075	...	108
7. Other sanitary works ...	17,156	11,717	5,439	...
Total ...	4,29,203	4,12,051	17,152	...
8. Construction and maintenance of roads	1,15,548	1,47,786	...	32,238
Total including roads ...	5,44,751	5,59,837	...	15,086

The Habiganj and Karimganj Municipal Boards which spent larger sums than usual on conservancy in 1924 have incurred normal expenditure in 1925 and this accounts for a decrease of Rs. 10,060 under conservancy. In both these Municipalities conservancy arrangements are far from satisfactory and it would have been prudent if the Boards had raised the annual expenditure to that extent. The increase under "water-supply" is due to a larger sum having been spent by the Shillong Municipal Board in 1925 as compared with that in 1924.

31. *Surma Valley Division*.—No important sanitary work was carried out by any of the Municipal Boards in this division in the year under report. The results of the analyses of the waters of the Sylhet and Silchar water-works were satisfactory. The sanitary inspection of all Municipalities were as usual performed by the Director of Public Health and the Assistant Director of Public Health and defects were brought to notice for rectification.

Sanitary works. What most towns need is a good sanitary type of private latrine which allows easy access to sweepers and can be kept as clean as possible. Sylhet should have a drainage system which should be constructed year by year as funds permit. The present system of removal of night soil by means of hand carts is anything but satisfactory, and it should be replaced by carts drawn by bullocks or ponies as in other Municipalities. A second trenching ground on the opposite side of the Municipality is also a necessity.

Assam Valley Division.—No sanitary works of importance were executed in any of the Municipalities in this division. Here too the urgent need is the introduction of a better type of private latrine. The following minor sanitary works were carried out. Two masonry wells were under construction in the Goalpara Municipality. A Municipal market was improved in the Gauhati Municipality. In Palasbari certain conservancy plant was purchased. In Dibrugarh Municipality an experimental boring with the view of sinking tube wells to provide the town with a pipe water-supply was made. The water of the boring was analysed both bacteriologically and chemically in the Public Health Laboratory and was found to be a fair potable water. The water-supply of the town, which is at present derived from open surface wells, is liable to constant pollution and the sooner the Municipality is provided with a protected water-supply the better. Another important need of this town is an efficient drainage system.

Hill Districts.—In Shillong Municipality the segregation hospital was reconstructed. Wahjalynnoh spring to augment the water-supply was impounded and water-supply and drains in certain wards were improved.

A sanitary inspection of Kohima town and Assam Rifles lines there was made by the Director of Public Health. He also inspected Imphal, headquarters of the Manipur State. Its pipe water-supply was generally satisfactory. Chlorination of the filtered water when there is any doubt as to its purity was recommended. A sanitary inspection of the fourth Assam Rifles lines at Imphal was made. Certain inexpensive anti-malarial measures, *viz*, oiling and opening up of water channels and jungle clearing were recommended.

A total expenditure of Rs. 23,945 was incurred by the Public Works Department on the maintenance of water-supply and drainage and on town improvement in 1925 as compared with Rs. 7,744 in 1924.

SECTION X.

GENERAL REMARKS.

32. The aggregate expenditure of Local Boards on the construction and repairs of tanks and wells for water-supply amounted to Rs. 70,244 in 1925 as compared with Rs. 86,397 in the preceding year. The amount spent on original works by individual Local Boards were as follows.

Village sanitation. Dhubri Local Board Rs. 13,035, Goalpara Rs. 682, Gauhati Rs. 500, Barpeta Rs. 1,302, Tezpur Rs. 7,601, Mangaldai Rs. 6,784, Nowgong Rs. 4,355, Jorhat Rs. 781, Sibsagar Rs. 124, Golaghat Rs. 1,630, Dibrugarh Rs. 822, North Lakhimpur Rs. 884, Silchar Rs. 204, Hailakandi Rs. 1,871, and five Local Boards in Sylhet Rs. 4,185.

A Government grant of Rs. 3,00,000 was made during the year to Local Boards for the improvement of their rural water supplies. No prescribed type plans of tanks and wells are being followed and no expert supervision is being exercised. To ensure useful work being done, a prescribed type plan should be followed and expert advice should be sought. What is most urgent is that all new supplies should be protected from all possible sources of contamination. All areas from which cholera has been reported should receive attention.

Useful and much delayed public health propaganda work was initiated during the year both in schools and to the general public. A booklet was written in a conversational manner and well illustrated with pictures on each of the chief diseases of *kala azar*, cholera, small-pox and malaria and distributed. Six Magic Lanterns and sets of slides on the above diseases were obtained from the Indian Red Cross Society. Ten thousand copies of each of the booklets were supplied to the Director of Public Instruction for distribution to the primary schools in villages. Inspectors when inspecting a school will see that the booklets are utilised by the teachers and question the pupils orally on the subject. The pupils or teachers who have achieved most success in interesting the pupils will be offered a prize.

The Civil Surgeons of Sylhet, Goalpara, Kamrup, Darrang, Nowgong and Sib-sagar have each been supplied with a Magic Lantern, slides and pamphlets. The Assistant Surgeons on *kala azar* duty in these districts have been entrusted with the work of giving demonstrations when they go out on tours of inspection.

33. The following statement shows the amounts of quinine sold in 1925 as compared with that of the preceding year:—

Sale of quinine.

District.	Treatment parcels sold in—		Difference.	
	1925.	1924.	Increase.	Decrease.
1	2	3	4	5
Cachar	269	262	7	...
Sylhet	1,037	1,445	...	408
Goalpara	455	537	...	82
Kamrup	446	560	...	114
Darrang	254	318	...	64
Nowgong	238	271	...	33
Sibsagar	135	175	...	40
Lakhimpur	105	134	...	29
Khasi & Jaintia Hills	170	216	...	46
Naga Hills	69	71	...	2
Lushai Hills	275	199	76	...
Garo Hills	19	28	...	9
Sadiya Frontier Tract	2	3	...	1
Manipur State	50	97	...	47
Total	3,524	4,313	83	875

Malaria was less prevalent and this accounts for smaller sales during the year.

The retail price of a quinine treatment comprising 20 four-grain tablets of sulphate of quinine intended for sale especially to cultivators and poor people by agents other than the post office was reduced from annas 9 to annas 6 with effect from December 1925. Since the close of the year the price of a treatment has been reduced generally to annas 6.

34. The Sidheswari Mela was held in the Cachar district where some 9,000 people assembled. The Civil Surgeon took the usual precautions and no epidemic was reported.

Pilgrim traffic.

35. There were two new lines under construction under the Assam-Bengal Railway, *viz.*, the Sibsagar-Khowang Railway and Furkating Badulipara-Jorhat Railway. The camp at Sibsagar-Khowang contains 3,290 coolies among whom there were 4 deaths from cholera, 4 from pneumonia and 3 from dysentery. Both trench and bucket latrines have been provided. The water-supply for coolies is provided from tanks, tube wells and river water passed through jewel filters. There are seven camps at Furkating-Badulipara-Jorhat Railway, but none of these contains more than 175 coolies. No deaths nor epidemics were reported. Satisfactory latrines and a water-supply in the form of tube wells was provided. Two Hospital Assistants are in charge of medical and sanitary arrangements under the general supervision of a medical officer who inspects them once a month.

No construction camps are reported on the Eastern Bengal Railway within the province.

Public Health Laboratory.

36. The following are the details of the work done in the Public Health Laboratory during the year:—

—						1925.	1924.
1						2	3
Chemical analysis of water	...	...	...	...	...	93	109
Ditto of <i>ghee</i>	...	...	...	...	...	16	19
Ditto of milk	...	...	...	...	...	123	314
Ditto of mustard oil	...	...	...	...	...	38	18
Ditto of other food-stuff	...	...	...	...	...	11	8
Miscellaneous Chemical	...	...	...	...	...	3	...
Bacteriological examination of water	...	...	...	...	...	234	265
Miscellaneous Bacteriological	...	...	...	...	...	12	...
Vaccine lymph	...	...	...	...	...	207	172
Antiseptics	...	...	...	...	...	43	...
Miscellaneous	...	...	...	...	...	...	9
Silt experiment	...	...	...	...	...	...	131
Total						779	1,045

None of the 38 samples of mustard oil analysed was found to be adulterated. Out of 123 samples of milk analysed 37 were found not up to the standard and 5 out of 16 samples of *ghee* were found to be adulterated.

Shillong pipe water was regularly analysed and was found to have maintained its very high standard of purity throughout the year. Sylhet and Silchar waters which are chlorinated gave excellent results throughout the year. Jorhat and Tezpur waters which are not chlorinated were fairly good except on two occasions. Dhubri water was always found to be unsatisfactory. I have recommended chlorination of Jorhat, Tezpur and Dhubri waters. Gauhati water was examined twelve times and filtration was found to be defective on nine occasions.

Several varieties of commercial articles liberating chlorine were examined. Two samples of bleaching powder were examined to determine the rate at which their chlorine contents disappeared on keeping under ordinary Laboratory condition. A four-pound tin of each was opened and its contents shaken periodically and the lids adjusted every time. One which originally contained 15.1 per cent. was found to contain 14.2 per cent. of available chlorine after five months. The other to which

20 per cent. of quicklime were added had 21·7 per cent. at the beginning and 20·1 per cent. at the end of the same period. The Laboratory continued to serve as a medical store depôt for the supply of certain special equipments for use of the *kala azar* hospitals and dispensaries throughout the province.

Assistant Surgeon Ram Taran Sen, D.P.H., held charge throughout the year.

Immigration.

37. The number of immigrants to Assam by different routes were as follows:—

<i>Viâ</i> Goalundo by steamer	...	...	...	659
<i>Viâ</i> Chandpur by rail to Assam Valley	...	...	...	4,287
<i>Viâ</i> Chandpur by rail to Cachar and Sylhet	...	...	...	4,900
<i>Viâ</i> Naihati and Amingaon	...	...	...	27,347
				<hr/>
		Total	...	37,193

The steamer route from Goalundo for the conveyance of immigrants was discontinued with effect from 1st June 1926. Those formerly using this route now proceed to Upper Assam districts either *viâ* Chandpur or Amingaon.

There were 4 admissions to the Goalundo hospitals all for minor complaints. Thirty-seven emigrants were repatriated from Goalundo during the year. Five cases of sickness (3 from cholera, 1 from small-pox and 1 from fever) were admitted in the hospital at Naihati and all of them were cured and discharged. Three cases of small-pox were admitted in Gauhati hospital.

The Travelling Inspector of Emigrants who made frequent inspections of sanitary arrangements for immigrants *en route* from Naihati reported them to be generally satisfactory.

38. I held charge of the Department from the beginning of the year up to 4th April 1925 and again from 5th December 1925 to the end of the year. Major J. B. Hanafin, C.I.E., I.M.S., held charge from 5th April 1925 to 4th December 1925.

In January I inspected *kala azar* and vaccination in the Sibsagar, Nowgong and Lakhimpur districts and also inspected Jorhat, Sibsagar and Golaghat Municipalities. In February I inspected *kala azar* and vaccination in the Darrang district. The month of March was spent on administrative work at headquarters. In April Major Hanafin visited Dibrugarh in connection with the Berry-White Medical School Examination and inspected the Dibrugarh Municipality. In May he visited the Nowgong district to investigate the occurrence of five deaths among *kala azar* patients of the Kampur dispensary as a result of injection of antinomy. April and May were occupied by the preparation of the Annual Administration Reports of the Department. In July he accompanied Colonel C. H. Bensley, I.M.S., Inspector General of Civil Hospitals, as his medical attendant to Calcutta. In August he inspected *kala azar* in the Sylhet and Kamrup districts and inspected Sylhet, Habiganj, and Gauhati Municipalities. In October he visited Dibrugarh in connection with the Medical School Examination and visited Sadiya, inspected *kala azar* in the Kamrup district; and inspected the Shillong Municipality. In November he inspected Kohima and Imphal towns and the Assam Rifles stationed there.

Dr. P. Gupta filled the post of the Assistant Director of Public Health. He was occupied during almost the whole of the year on inspection of *kala azar*, vaccination, epidemic and Municipal inspection in the district of Sylhet except for a few months when he was called away to deal with cholera epidemics in the districts of Kamrup, Nowgong and Darrang. He enjoyed recess from 7th September to 6th October at Shillong.

In conclusion I wish to express my thanks to my entire office staff for the excellent manner in which they have worked during the year, but especially to my Head Assistant Babu Chandra Nath Halder, who has been as energetic and efficient as usual, and also to Babu Iswar Chandra Das who has been principally in charge of our *kala azar* operations, which he has conducted in a most efficient and intelligent manner. My office staff have worked loyally and strenuously and have dealt with an ever increasing mass of correspondence in a most creditable manner especially in view of the fact that my staff is hopelessly inadequate to cope with and be up-to-date with this increasing amount of work.

SHILLONG :

T. D. MURISON, Major, I.M.S.,

The 26th June 1926.

Director of Public Health, Assam.

SECTION XI.

ANNUAL REPORT OF THE PUBLIC HEALTH BOARD FOR THE YEAR 1925.

39. The constitution of the Public Health Board was the same as in the previous year. Only one meeting of the Board was held during the year in which the Board recommended that the schemes of rural water-supply which will be formulated by the Local Boards as a result of a special Government grant should be submitted to expert advice by Local Public Works Department officials, and that the work while in progress should be opened to expert inspection. It was also recommended that when tanks are proposed small inexpensive platforms should be constructed and they should have some form of protective fencing and the banks should be raised to prevent surface water inflow. Meetings of the Health Board (Epidemics) were held as frequently as were necessary to consider measures for dealing with epidemics and for discussion of other important matters affecting the Public Health Department.

T. D. MURISON, *Major, I.M.S.,*

Secretary, Public Health Board, Assam.

C. H. BENSLEY, *Colonel, I.M.S.,*

*President, Public Health Board,
Assam.*

STATEMENTS.

IMPERIAL STATEMENT No. I.—*Statement showing the birth*

No.	Districts.				Population according to the Census of 1921.			Number of births registered.		
					Male.	Female.	Total.	Male.	Female.	Total.
1	2				3	4	5	6	7	8
	SURMA VALLEY.									
1	Cachar	...	...	...	261,594	238,890	500,484	8,532	8,147	16,679
2	Sylhet	...	...	...	1,308,734	1,232,607	2,541,341	38,197	35,171	73,368
	Total	...	...	...	1,570,328	1,471,497	3,041,825	46,729	43,318	90,047
	ASSAM VALLEY.									
3	Goalpara	...	...	...	406,628	355,895	762,523	13,553	12,717	26,270
4	Kamrup	...	...	...	397,267	365,404	762,671	11,062	10,613	21,675
5	Darrang	...	...	...	252,849	224,593	477,442	7,200	6,824	14,024
6	Nowgong	...	...	...	208,731	189,276	398,007	5,111	4,728	9,839
7	Sibsagar	...	...	...	433,913	389,284	823,197	11,835	10,909	22,744
8	Lakhimpur	...	...	...	312,843	273,734	586,577	7,519	7,143	14,662
	Total	...	...	...	2,012,231	1,798,186	3,810,417	56,280	52,934	109,214
	Total for the Province	...	...	...	3,582,559	3,269,683	6,852,242	103,009	96,252	199,261

IMPERIAL STATEMENT No. II.—*Statement showing the births and deaths*

No.	Districts.	Area, in square miles.	Average population per square mile.	Population (Census of 1921).			Births.		Number of deaths registered.		
				Male.	Female.	Total.	Total number.	Births per 1,000 of population.	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10	11	12
	SURMA VALLEY.										
1	Cachar ...	1,859	269	261,594	238,890	500,484	16,679	33.32	5,172	4,860	10,032
2	Sylhet ...	5,388	472	1,308,734	1,232,607	2,541,341	73,368	28.87	32,280	27,972	60,252
	Total ...	7,247	419	1,570,328	1,471,497	3,041,825	90,047	29.60	37,452	32,832	70,284
	ASSAM VALLEY.										
3	Goalpara ...	3,954	193	406,628	355,895	762,523	26,270	34.45	12,047	9,560	21,607
4	Kamrup ...	3,863	197	397,267	365,404	762,671	21,675	28.42	8,290	6,934	15,224
5	Darrang ...	2,916	164	252,849	224,593	477,442	14,024	29.37	6,338	5,801	12,139
6	Nowgong ...	3,699	108	208,731	189,276	398,007	9,839	24.72	4,870	4,001	8,871
7	Sibsagar ...	5,097	162	433,913	389,284	823,197	22,744	27.61	8,056	7,415	15,471
8	Lakhimpur ...	3,910	143	312,843	273,734	586,577	14,662	24.99	5,736	5,019	10,755
	Total ...	23,439	162	2,012,231	1,798,186	3,810,417	109,214	28.66	45,337	38,730	84,067
	Total for the Province	30,686	223	3,582,559	3,269,683	6,852,242	199,261	29.08	82,789	71,562	154,351

registered in the districts of Assam during the year 1925.

Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.		
Male.	Female.	Total.				Male.	Female.	Total.
9	10	11	12	13	14	15	16	17
17·04	16·28	33·32	105	13·28	...	16·24	15·49	31·74
15·03	13·84	28·87	109	5·16	...	15·39	14·32	29·71
15·36	14·24	29·60	107	6·50	...	15·53	14·51	30·05
17·77	16·67	34·45	107	6·11	...	17·75	16·61	34·36
14·50	13·91	28·42	104	8·46	...	14·71	13·47	28·18
15·08	14·29	29·37	105	3·95	...	14·91	14·29	29·20
12·84	11·88	21·72	108	2·43	...	13·05	12·10	25·16
14·37	13·24	27·61	108	8·82	...	13·60	12·68	26·28
12·81	12·18	24·99	105	6·66	...	13·16	12·62	25·78
14·77	13·89	28·66	106	6·60	...	14·69	13·76	28·45
15·03	14·04	29·08	107	6·56	...	15·06	14·09	29·16

registered in the districts of Assam during the year 1925.

Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from—											Mean ratio of deaths per 1,000 during the previous five years.		
	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	All causes.			Male.	Female.	Total.
									Male.	Female.	Total.			
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
106	·46	·06	...	9·76	1·78	1·56	·23	6·13	19·77	20·34	20·04	27·34	23·18	27·74
115	·74	·04	...	14·32	1·27	·60	·32	6·40	24·66	22·60	23·71	28·68	26·11	27·42
114	·69	·04	...	13·57	1·35	·76	·31	6·35	23·85	22·31	23·10	28·44	26·38	27·48
126	·56	·18	...	25·77	·35	·19	·37	·89	29·63	25·86	28·34	31·71	28·74	30·33
119	1·37	·66	...	14·24	·64	·35	·26	2·42	20·96	18·97	19·96	25·75	22·34	25·05
109	1·90	·19	...	15·07	2·40	1·31	·23	4·31	25·07	25·82	25·42	26·80	23·50	27·60
121	3·59	·05	...	15·00	·65	·38	·19	2·42	23·33	21·14	22·29	24·43	23·60	24·04
109	·22	2·16	...	9·65	1·92	·98	·20	3·64	18·56	19·05	18·79	19·17	19·83	19·51
114	·21	·10	...	8·68	2·26	2·13	·23	4·66	18·33	18·34	18·33	22·32	22·86	22·58
117	1·08	·68	...	14·88	1·33	·86	·26	2·96	22·53	21·53	22·06	25·00	24·45	24·75
115	·90	·49	...	14·30	1·34	·81	·23	4·46	23·10	21·83	22·52	26·51	25·35	25·95

IMPERIAL STATEMENT No. III.—Deaths registered in the

No.	Districts.				January.	February.	March.	April.	May.
1	2				3	4	5	6	7
	SURMA VALLEY.								
1	Cachar	...	...	...	1,050	807	807	922	804
2	Sylhet	...	...	...	8,444	5,926	4,953	3,766	3,766
	Total	...	...	...	9,494	6,733	5,760	4,688	4,510
	ASSAM VALLEY.								
3	Goalpara	...	...	...	1,936	1,360	1,566	1,721	1,993
4	Kamrup	...	...	...	1,228	923	1,077	1,057	1,350
5	Darrang	...	...	...	974	867	870	678	1,352
6	Nowgong	...	...	...	585	575	563	647	853
7	Sibsagar	...	...	...	1,167	917	979	957	1,417
8	Lakhimpur	...	...	...	846	764	655	723	816
	Total	...	...	...	6,736	5,406	5,710	5,783	7,781
	Total for the Province	...	...	...	16,230	12,139	11,470	10,471	12,291
	Ratio per 1,000	...	...	...	2.36	1.78	1.65	1.52	1.79

IMPERIAL STATEMENT No. IV.—Deaths registered according to

No.	Districts.	Under 1 year.											1 and under 5.		
		Not exceeding 1 month.			Over 1 month and not exceeding 6 months.			Over 6 months and not exceeding 12 months.			Total of male columns 3, 6 and 9.	Total of female columns 4, 7 and 10.	Total.	Male.	Female.
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	SURMA VALLEY.														
1	Cachar ...	824	644	1,468	372	319	691	136	150	286	1,332	1,113	2,445	588	581
2	Sylhet ...	4,922	4,038	8,960	1,637	1,237	2,974	979	747	1,726	7,538	6,122	13,660	3,727	3,320
	Total ...	5,746	4,682	10,428	2,009	1,656	3,665	1,115	897	2,012	8,870	7,235	16,105	4,315	3,901
	ASSAM VALLEY.														
3	Goalpara ...	1,757	1,340	3,097	1,229	950	2,179	285	346	731	3,371	2,636	6,007	1,622	1,383
4	Kamrup ...	1,032	927	2,009	506	517	1,023	289	245	525	1,868	1,689	3,557	1,377	1,198
5	Darrang ...	517	444	961	518	501	1,019	294	213	417	1,239	1,158	2,397	907	833
6	Nowgong ...	411	327	738	375	285	660	182	127	309	968	739	1,707	548	555
7	Sibsagar ...	658	574	1,232	630	443	1,063	439	412	851	1,717	1,429	3,146	1,282	1,235
8	Lakhimpur ...	409	340	740	316	273	589	260	234	494	976	847	1,823	753	824
	Total ...	4,825	3,952	8,777	3,564	2,969	6,533	1,750	1,577	3,327	10,139	8,498	18,637	6,489	6,023
	Total for the Province.	10,571	8,634	19,205	5,573	4,625	10,198	2,865	2,474	5,339	19,009	15,733	34,742	10,804	9,929
	Population (according to the census of 1921).	...	...	...	...	...	...	...	...	...	101,342	99,389	200,731	359,087	376,501
	Ratio per 1000	...	...	...	...	...	...	...	...	...	187.57	158.19	173.67	30.08	26.37

districts of Assam during each month of the year 1925.

June.	July.	August.	September.	October.	November.	December.	Total.
8	9	10	11	12	13	14	15
956	763	579	714	763	832	1,035	10,932
4,432	4,316	3,784	3,973	4,992	5,706	6,254	60,252
5,388	5,079	4,363	4,687	5,755	6,538	7,289	70,284
2,209	1,901	1,617	1,377	1,958	1,957	2,012	21,607
1,701	1,714	1,315	1,332	1,200	1,167	1,160	15,224
1,456	1,202	731	1,022	901	1,037	1,049	12,139
1,037	904	732	550	678	934	813	8,871
1,326	1,492	1,445	1,613	1,195	1,631	1,332	15,471
878	872	949	1,115	1,014	1,074	1,049	10,755
8,607	8,085	6,789	7,009	6,946	7,800	7,415	84,067
13,995	13,164	11,152	11,696	12,701	14,338	14,704	154,351
2.04	1.92	1.62	1.70	1.85	2.09	2.14	22.52

age in the districts of Assam during the year 1925.

5 and under 10.		10 and under 15.		15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.	
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
285	252	179	158	169	275	433	706	525	539	525	345	448	295	688	596
2,027	1,771	1,366	889	1,220	1,807	3,033	4,582	3,430	2,904	2,963	1,796	2,563	1,645	4,338	3,136
2,312	2,023	1,545	1,047	1,459	2,082	3,466	5,288	3,955	3,443	3,488	2,141	3,016	1,940	5,026	3,732
860	698	499	373	418	613	965	1,109	1,205	938	1,061	585	800	441	1,346	784
806	648	380	281	320	338	642	709	759	671	707	472	622	353	809	570
481	423	271	228	228	346	602	809	735	728	704	489	554	348	617	440
484	375	297	255	285	309	537	579	552	436	463	292	300	216	371	245
543	490	338	277	327	423	669	1,025	829	1,038	862	538	673	473	766	462
386	336	266	230	205	263	565	736	789	795	742	410	516	393	538	365
3,560	2,969	2,101	1,664	1,783	2,292	3,980	4,967	4,869	4,516	4,544	2,786	3,525	2,144	4,347	2,836
5,872	4,992	3,646	2,711	3,242	4,374	7,446	10,255	8,824	7,959	8,032	4,927	6,541	4,084	9,373	6,598
530,966	568,880	433,305	342,744	278,664	292,075	577,151	613,934	556,071	448,620	352,844	259,435	198,849	149,979	137,230	113,126
10.11	8.77	8.41	7.91	11.63	14.97	13.94	16.70	15.67	17.74	22.32	18.99	32.89	27.23	63.28	55.85

IMPERIAL STATEMENT No. V.—Deaths registered according

No.	Districts.	Population according								
		Christians.			Hindus.			Muhammadans.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
1	2	3	4	5	6	7	8	9	10	11
	SURMA VALLEY.									
1	Cachar ...	848	762	1,610	163,782	152,463	319,245	89,513	81,109	170,622
2	Sylhet...	970	786	1,756	565,443	534,302	1,099,745	738,916	694,474	1,433,390
	Total ...	1,818	1,548	3,366	732,225	686,765	1,418,990	828,429	775,583	1,604,012
	ASSAM VALLEY.									
3	Goalpara ...	5,434	4,878	10,312	198,904	170,488	369,392	167,765	148,725	316,490
4	Kamrup ...	1,926	1,735	3,661	283,554	261,085	544,639	59,986	51,560	111,546
5	Darrang ...	2,816	2,502	5,318	179,272	158,457	337,729	20,137	16,398	36,535
6	Nowgong ...	1,465	1,460	2,925	116,864	105,235	222,099	38,655	31,927	70,582
7	Sibsagar ...	4,557	3,823	8,380	365,885	329,131	695,016	19,370	15,624	34,994
8	Lakhimpur ...	4,216	3,515	7,731	244,852	214,283	459,135	9,485	5,961	15,446
	Total ...	20,414	17,913	38,327	1,389,331	1,238,679	2,628,010	315,398	270,195	585,593
	Total for the Province ...	22,232	19,461	41,693	2,121,556	1,925,444	4,047,000	1,143,827	1,045,778	2,189,605

IMPERIAL STATEMENT No. V.—Deaths registered according

No.	Districts.	Number of deaths registered—concl'd.								
		Buddhists.			Other classes.			Total.		
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
		30	31	32	33	34	35	36	37	38
	SURMA VALLEY.									
1	Cachar ...	...	...	...	357	336	693	5,172	4,860	10,032
2	Sylhet...	2	...	2	294	283	577	32,280	27,972	60,252
	Total ...	2	...	2	651	619	1,270	37,452	32,832	70,284
	ASSAM VALLEY.									
3	Goalpara ...	6	6	12	1,741	1,191	2,932	12,047	9,560	21,607
4	Kamrup ...	2	2	4	1,396	1,232	2,628	8,220	6,934	15,224
5	Darrang ...	7	9	16	2,047	1,849	3,896	6,338	5,801	12,139
6	Nowgong ...	...	...	...	1,421	1,246	2,667	4,870	4,001	8,871
7	Sibsagar ...	15	18	33	949	913	1,862	8,056	7,415	15,471
8	Lakhimpur ...	23	16	45	1,042	974	2,016	5,736	5,019	10,755
	Total...	59	51	110	8,596	7,405	16,001	45,337	38,730	84,067
	Total for the Province	61	51	112	9,247	8,024	17,271	82,789	71,562	154,351

to class in the districts of Assam during the year 1925.

to the Census of 1921.									Number of deaths registered.								
Buddhists.			Other classes.			Total.			Christians.			Hindus.			Muhammadans.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
33	2	35	4,418	4,554	8,972	261,594	238,890	500,484	6	9	15	3,027	2,853	5,880	1,782	1,662	3,444
34	9	43	3,371	3,936	6,407	1,308,734	1,232,607	2,541,341	10	10	20	13,673	11,765	25,438	18,301	15,914	34,215
67	11	78	7,789	7,590	15,379	1,570,328	1,471,497	3,041,825	16	19	35	16,700	14,618	31,318	20,083	17,576	37,659
547	375	922	33,978	31,429	65,407	406,628	355,895	762,523	113	115	228	6,018	4,966	10,984	4,169	3,282	7,451
286	113	399	51,515	50,911	102,426	397,267	365,404	762,671	18	19	37	5,795	4,878	10,673	1,079	803	1,882
466	244	710	50,158	46,992	97,150	252,849	224,593	477,442	74	85	159	3,629	3,277	6,906	581	581	1,162
24	6	30	51,723	50,648	102,371	208,731	189,276	398,007	37	26	63	2,629	2,219	4,848	783	510	1,293
1,389	1,055	2,444	42,712	39,651	82,363	433,913	389,284	823,197	35	43	78	6,744	6,169	12,913	313	272	585
2,516	2,110	4,626	51,774	47,865	99,639	312,843	273,734	586,577	25	36	61	4,486	3,891	8,377	154	102	256
5,228	3,903	9,131	281,860	267,496	549,356	2,012,231	1,798,186	3,810,417	302	324	626	29,301	25,400	54,701	7,079	5,550	12,629
5,295	3,914	9,209	289,649	275,086	564,735	3,582,559	3,269,683	6,852,242	318	343	661	46,001	40,018	86,019	27,162	23,126	50,288

to class in the districts of Assam during the year 1925—concl'd.

Ratio of deaths per 1,000 of population.																	
Christians.			Hindus.			Muhammadans.			Buddhists.			Other classes.			Total.		
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
7.08	11.81	9.32	18.15	18.71	18.41	19.91	20.49	20.18	...	...	...	80.80	73.78	77.24	19.77	20.34	20.04
10.31	12.72	11.39	24.18	22.02	23.13	24.76	22.91	23.87	58.82	...	46.51	87.21	93.21	90.05	24.66	22.69	23.71
8.80	12.27	10.39	22.80	21.28	22.07	24.24	22.66	23.47	29.58	...	25.64	83.57	81.55	82.58	23.85	22.31	23.10
20.79	23.57	22.11	30.26	29.12	29.74	24.85	22.06	23.54	10.97	16.00	13.01	51.24	37.89	44.83	29.63	26.86	28.34
9.34	10.95	10.11	20.44	18.63	19.59	17.99	15.57	16.87	6.99	17.69	10.02	27.09	24.19	25.66	20.96	18.97	19.96
26.28	33.97	29.89	20.24	20.63	20.45	28.85	35.43	31.80	15.02	36.89	22.53	40.81	39.34	40.10	25.07	25.83	25.42
25.25	17.81	21.54	22.49	21.08	21.83	20.25	15.97	18.32	...	...	...	27.47	24.60	26.05	23.33	21.14	22.29
7.68	11.24	9.31	18.43	18.74	18.58	16.16	17.41	16.71	10.79	17.05	13.50	22.21	23.63	22.60	18.56	19.05	18.79
5.93	10.24	7.89	18.32	18.16	18.24	16.24	17.11	16.57	11.53	7.53	9.73	20.12	20.35	20.13	18.33	18.34	18.33
14.79	18.08	16.33	20.09	20.50	20.81	22.44	20.58	21.56	11.28	13.03	12.04	30.49	27.68	29.12	22.53	21.53	22.06
14.30	17.62	15.85	21.68	20.78	21.25	23.74	22.11	22.51	11.52	13.03	12.16	31.92	29.16	30.58	23.10	21.88	22.52

IMPERIAL STATEMENT No. VI.—Deaths registered from different

1	2	3	4			5	6	7	8	9	10	
No.	Districts and towns.	Population according to Census of 1921.	Births.			Birth-rate.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.
			Male.	Female.	Total.							
DISTRICTS EXCLUDING TOWNS.												
SURMA VALLEY.												
1	Cachar	488,052	8,404	8,029	16,433	33·67	227	28	...	4,852	861	766
2	Sylhet	2,505,744	37,688	34,686	72,374	28·88	1,864	112	...	36,188	3,095	1,459
	Total	2,993,796	46,092	42,715	88,807	29·66	2,091	140	...	41,040	3,956	2,225
ASSAM VALLEY.												
3	Goalpara	745,293	13,232	12,447	25,679	34·45	415	140	...	19,479	239	89
4	Kamrup	734,461	10,473	10,062	20,535	27·95	1,039	492	...	10,526	386	181
5	Darrang	469,078	7,064	6,722	13,786	29·39	908	91	...	7,132	1,097	576
6	Nowgong	391,122	4,983	4,621	9,604	24·55	1,419	17	...	5,903	232	133
7	Sibsagar	804,955	11,525	10,657	22,182	27·55	182	1,758	...	7,789	1,514	792
8	Lakhimpur	564,362	7,246	6,877	14,123	25·02	120	59	...	4,968	1,243	1,210
	Total	3,709,271	54,523	51,386	105,909	28·55	4,083	2,557	...	55,787	4,711	2,981
	Total for districts, excluding towns.	6,703,067	100,615	94,101	194,716	29·04	6,174	2,697	...	96,827	8,667	5,206
TOWNS.												
SURMA VALLEY.												
1	Silchar	10,204	114	97	211	20·68	3	5	...	28	25	14
2	Hailakandi	2,228	14	21	35	15·71	...	...	...	8	3	1
3	Sylhet	16,912	250	238	488	28·85	4	...	...	72	73	49
4	Karimganj	4,552	52	40	92	20·21	5	...	...	32	11	4
5	Maulvi Bazar	3,334	35	40	75	22·49	2	...	...	16	3	1
6	Habiganj	5,918	101	86	187	31·59	1	...	...	47	38	15
7	Sunamganj	4,381	71	81	152	31·14	4	1	...	47	12	3
	Total	48,029	637	603	1,240	25·81	19	6	...	250	165	87

causes in the districts and towns of the province of Assam during the year 1925.

11						12	13	14											15
Injuries.						All other causes.	Total.	Ratio of deaths per 1,000 of population.											No.
Suicide.		Wounds or accidents.	Snakes and wild animals.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.			
Male.	Female.															For the year.	Mean of previous five years.		
4	4	107	17	4	136	2,993	9,863	·46	·06	...	9·94	1·76	1·57	·28	6·13	20·21	28·03	1	
32	21	679	60	8	800	15,921	59,439	·74	·04	...	14·44	1·23	·58	·32	6·35	23·72	27·48	2	
36	25	786	77	12	936	18,914	69,502	·69	·05	...	13·70	1·32	·74	·31	6·31	23·15	27·57		
13	13	143	101	2	277	531	21,170	·55	·19	...	26·14	·32	·12	·37	·71	28·40	30·44	3	
36	32	70	36	12	186	1,603	14,418	1·41	·67	...	14·33	·52	·25	·25	2·17	19·63	24·91	4	
7	6	45	43	7	108	1,983	11,885	1·93	·19	...	15·18	2·34	1·23	·23	4·23	25·34	27·70	5	
4	4	43	16	5	72	912	8,688	3·63	·04	...	15·09	·59	·34	·18	2·33	22·21	23·99	6	
37	29	67	22	2	157	2,909	15,191	·22	2·18	...	9·67	1·88	·98	·19	3·61	18·76	19·49	7	
16	7	94	11	...	128	2,534	10,262	·21	·10	...	8·80	2·20	2·14	·23	4·49	18·18	22·68	8	
113	91	467	229	28	928	10,477	81,524	1·10	·69	...	15·04	1·27	·80	·25	2·82	21·98	24·76		
149	116	1,253	306	40	1,864	29,391	150,826	·92	·40	...	14·44	1·29	·77	·27	4·38	22·50	26·02		
...	...	7	...	...	7	60	142	·29	·49	...	2·74	2·45	1·37	·69	5·88	13·92	15·27	1
...	...	...	...	...	...	15	27	...	...	...	3·59	1·35	·45	...	6·75	12·15	18·85	2
1	...	11	...	...	12	162	372	·24	...	...	4·26	4·32	2·89	·71	9·57	21·99	23·18	3
...	...	2	...	...	2	56	90	1·09	...	...	7·03	2·41	·88	·44	7·90	19·77	18·67	4
...	...	...	...	...	...	7	29	·59	...	...	4·79	·89	·29	...	2·09	8·69	14·69	5
...	...	10	...	...	10	87	198	·17	...	...	7·94	6·42	2·53	1·69	14·70	33·46	32·61	6
...	...	3	1	...	4	53	124	·82	·20	...	9·63	2·46	·61	·82	10·86	25·40	24·17	7	
1	...	33	1	...	35	420	982	·39	·12	...	5·20	3·43	1·81	·72	8·74	20·44	21·65		

IMPERIAL STATEMENT No. VI.—Deaths registered from different causes

1	2	3	4			5	6	7	8	9	10	
No.	Districts and towns.	Population according to Census of 1921.	Births.			Birth-rate.	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.
			Male.	Female.	Total.							
TOWNS—concl'd. ASSAM VALLEY.												
8	Dhubri ...	6,707	135	108	243	36·22	...	...	...	30	15	32
9	Goalpara ...	6,212	115	84	199	32·03	13	...	...	74	5	15
10	Gauripur ...	4,311	71	78	149	34·56	4	...	...	67	10	16
11	Gauhati ...	16,480	248	236	484	29·37	4	13	...	185	70	62
12	Barpeta ...	11,730	341	315	656	55·92	4	...	...	152	29	27
13	Tezpur ...	7,341	122	92	214	29·15	1	1	...	58	42	50
14	Mangaldai ...	1,023	14	10	24	23·46	...	...	...	17	7	...
15	Nowgong ...	6,885	128	107	235	34·13	11	2	...	68	26	19
16	Jorhat ...	6,626	112	88	200	30·18	...	3	...	33	19	13
17	Sibsagar ...	5,329	82	88	170	31·90	...	1	...	50	34	2
18	Golaghat ...	3,655	59	36	95	25·99	...	14	...	36	10	2
19	Nazira... ...	2,632	57	40	97	36·85	...	6	...	42	6	3
20	Dibrugarh ...	16,067	197	180	377	23·55	2	1	...	64	56	58
21	North Lakhimpur ...	1,966	31	31	62	31·54	...	...	...	8	13	4
22	Doom Dooma ...	1,162	16	14	30	25·82	1	...	...	18	6	6
23	Tinsukia ...	3,080	29	41	70	22·73	...	1	...	36	8	...
	Total ...	101,146	1,757	1,548	3,305	32·67	40	42	...	938	356	309
	Total for towns ...	149,175	2,394	2,151	4,545	30·46	59	48	...	1,188	521	396
	Total for the Province ...	6,852,242	103,009	96,252	199,261	29·08	6,2·3	2,745	...	98,015	9,188	5,602

Supplementary (optional) Statement

			1		2		3		4		5		6	
Towns.			Malaria.		Enteric fever.		Measles.		Relapsing fever.		Kala azar.		Other fevers.	
			Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.
Silchar	...	...	10	·98	...	...	...	...	...	...	1	·09	17	1·67
Sylhet	...	...	60	3·55	1	·06	1	·06	...	...	9	·53	1	·06
Habiganj	...	...	10	1·69	4	·67	...	...	...	...	33	5·57	...	...
Karimganj	...	...	27	5·93	...	...	...	...	...	...	5	1·10	...	...
Gauhati	...	...	51	3·09	2	·12	...	...	...	...	42	2·55	90	5·46
Barpeta	...	...	113	9·63	...	...	1	·08	...	...	37	3·15	1	·08
Dhubri	...	...	5	·74	1	·15	...	...	1	·15	23	3·43	...	...
Goalpara	...	...	8	1·29	...	...	...	...	...	...	5	·80	61	9·82
Tezpur	...	...	11	1·50	1	·13	...	...	...	...	30	4·09	16	2·18
Nowgong	...	...	...	...	...	...	...	...	...	...	49	7·12	19	2·76
Jorhat	...	...	9	1·26	1	·15	...	...	1	·15	6	·90	16	2·41
Dibrugarh	...	...	6	·37	6	·37	1	·06	...	...	4	·25	47	2·93
Shillong	...	...	4	·23	3	·17	...	...	...	...	6	35	41	2·38

in the districts and towns of the province of Assam during the year 1925—concluded.

11						12	13	14											15
Injuries.						All other causes.	Total.	Ratio of deaths per 1,000 of population.											Number.
Suicide.		Wounds or accidents.	Snakes and wild animals.	Rabies.	Total.			Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	From all causes.			
Male.	Female.															For the year.	Mean of previous five years.		
1	...	5	...	...	6	103	186	...	...	...	4.47	2.24	4.77	.89	15.36	27.73	27.88	8
1	1	...	...	...	2	21	130	2.09	...	...	11.91	.80	2.42	.32	3.38	20.92	29.45	9
...	...	...	...	...	...	24	121	.93	...	...	15.54	2.32	3.71	...	5.57	28.07	19.95	10
1	...	13	1	1	16	135	485	.24	.79	...	11.22	4.24	3.77	.97	8.19	29.42	29.37	11	
...	...	6	1	...	7	102	321	.34	...	...	12.96	2.47	2.30	.59	8.69	27.36	22.16	12
1	...	3	...	...	4	70	226	.13	.13	...	7.90	5.72	6.81	.54	9.53	30.78	22.47	13
...	...	...	...	...	...	4	28	...	...	...	16.62	6.84	...	...	3.91	27.37	18.57	14
1	...	3	1	...	5	52	183	1.59	.29	...	9.87	3.77	2.76	.72	7.55	26.58	26.87	15	
...	...	7	...	...	7	56	131	...	.45	...	4.98	2.86	1.96	1.05	8.45	19.77	21.43	16
...	1	3	...	...	4	19	110	...	.18	...	9.38	6.38	.37	.75	3.56	20.64	18.57	17
...	...	...	...	...	...	8	70	...	3.83	...	9.85	2.74	.54	...	2.19	19.15	23.80	18
...	...	...	...	...	...	2	59	...	.23	...	15.96	2.28	1.14	...	.76	22.42	15.57	19
...	...	9	...	...	9	163	353	.12	.06	...	3.99	3.49	3.62	.56	10.19	22.05	21.36	20
...	...	...	...	1	1	24	50	...	...	...	4.07	6.61	2.03	.50	12.21	25.43	25.94	21
...	...	...	...	...	...	4	35	.86	...	...	15.49	5.16	5.16	...	3.44	20.12	30.12	22
...	...	...	...	1	1	9	55	...	.32	...	11.69	2.59	...	.32	2.92	17.85	12.33	23
5	2	49	3	3	62	796	2,543	.39	.41	...	9.27	3.51	3.05	.61	7.87	25.14	24.36		
6	2	82	4	3	97	1,216	3,525	.39	.32	...	7.96	3.49	2.65	.65	8.15	23.63	23.48		
155	118	1,335	310	43	1,961	30,607	154,351	.90	.40	...	14.30	1.34	.81	.28	4.46	22.52	25.95		

VI(a) for the year 1925.

7		8		9		10		11		12	Deaths under one year.			Infant mortality rate.
Dysentery.		Diarrhœa.		Pneumonia.		Pthisis.		Other respiratory diseases.		Deaths from child-birth.	Male.	Female.	Total.	
Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.	Deaths.	Ratio.					
14	1·37	11	1·07	8	·78	4	·39	2	·19	1	14	11	25	118·48
59	3·48	14	·83	9	·53	5	·29	35	2·07	15	37	48	85	174·18
33	5·57	5	·84	5	·84	...	...	10	1·69	5	33	29	62	331·55
8	1·75	3	·66	...	...	1	·22	3	·66	2	12	5	17	184·78
53	3·21	17	1·03	37	2·24	14	·85	11	·67	9	46	37	79	163·22
13	1·11	16	1·36	17	1·45	5	·43	5	·43	2	60	42	102	155·49
11	1·64	4	·59	19	2·83	8	1·19	5	·74	4	28	27	55	226·34
3	·48	2	·32	6	·96	3	·48	6	·96	...	11	5	16	80·40
33	4·49	9	1·23	19	2·58	15	2·04	16	2·18	5	26	20	46	214·95
26	3·77	...	...	...	...	...	...	19	2·76	2	9	11	20	85·11
10	1·51	9	1·36	7	1·05	2	·30	4	·60	5	14	6	20	100·
56	3·49	...	...	8	·49	10	·62	40	2·49	4	17	24	41	108·75
6	·35	3	·17	14	·81	2	·12	18	1·05	...	29	27	56	101·45

IMPERIAL STATEMENT No. VII.—Deaths registered from Cholera in the

Number.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.
		Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.					
1	2	3	4	5	6	7	8	9	10	11
	SURMA VALLEY.									
1	Cachar	12	9	1,103	40	13	22	36	102	20
2	Sylhet	40	39	10,781	538	929	338	270	108	86
	Total	52	48	11,884	578	942	360	306	210	106
	ASSAM VALLEY.									
3	Goalpara	22	15	2,137	116	195	34	...	15	54
4	Kamrup	15	14	1,954	45	16	10	16	18	84
5	Darrang	13	9	1,406	144	4	7	2	36	364
6	Nowgong	10	9	1,495	25*	34	11	9	45	171
7	Sibsagar	17	9	2,143	62	2	3	10	8	28
8	Lakhimpur	15	6	1,702	1	7	...	4	9	12
	Total	92	62	10,837	393	258	65	41	131	713
	Total for the Province	144	110	22,721	971	1,200	425	347	341	819

* Mauzas.

IMPERIAL STATEMENT No. VIII.—Deaths registered from

Number.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.	June.	July.
		Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.							
1	2	3	4	5	6	7	8	9	10	11	12	13
	SURMA VALLEY.											
1	Cachar	12	3	1,103	1	1	5	4	2	2	2	7
2	Sylhet	40	18	10,781	40	1	3	13	10	12	26	8
	Total	52	21	11,884	41	2	8	17	12	14	28	15
	ASSAM VALLEY.											
3	Goalpara	22	11	2,137	68	1	4	15	18	15	18	21
4	Kamrup	15	13	1,954	47	33	44	76	66	58	91	31
5	Darrang	13	10	1,406	51	10	10	18	5	6	10	14
6	Nowgong	10	4	1,495	6*	1	...	9	...	...	...	9
7	Sibsagar	17	16	2,143	195	34	51	89	101	201	157	225
8	Lakhimpur	15	6	1,702	19	1	1	...	12	12	16	16
	Total	92	60	10,837	386	80	110	207	202	292	292	316
	Total for the Province	144	81	22,721	427	82	118	224	214	306	320	331

* Mauzas.

districts of Assam during each month of the year 1925.

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
19	3	5	3	3	2	2	117	113	230	·44	·47	·46	2·14	1
71	31	5	2	14	2	24	1,017	863	1,880	·78	·70	·74	1·67	2
90	34	10	5	17	4	26	1,134	976	2,110	·72	·66	·69	1·75	
16	25	...	1	18	20	54	233	199	432	·57	·56	·56	1·47	3
199	221	161	132	109	19	12	585	462	1,047	1·47	1·26	1·37	3·63	4
333	91	28	12	13	12	7	446	463	909	1·76	2·06	1·90	1·87	5
323	140	73	8	45	321	250	757	673	1,430	3·62	3·56	3·59	·93	6
17	27	29	17	13	14	14	93	89	182	·21	·23	·22	·29	7
17	16	14	22	14	8	...	71	52	123	·23	·19	·21	·22	8
905	520	305	242	212	394	337	2,185	1,938	4,123	1·08	1·07	1·08	1·45	
995	554	315	247	229	398	363	3,319	2,914	6,233	·92	·89	·90	1·58	

Small-pox in the districts of Assam during each month of the year 1925.

August.	September.	October.	November.	December.	Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
					Male.	Female.	Total.	Under 1 year.	One to 10 years.	Male.	Female.	Total.		
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
...	...	10	...	...	18	15	33	...	...	·07	·06	·06	·02	1
10	7	1	2	20	61	52	113	3	3	·04	·04	·04	·16	2
10	7	11	2	20	79	67	146	3	3	·05	·04	·04	·13	
12	5	10	13	8	78	62	140	20	23	·19	·17	·18	·46	3
31	20	6	19	30	258	247	505	85	224	·65	·67	·66	·74	4
3	4	4	3	5	45	47	92	...	15	·18	·21	·19	·79	5
...	...	...	...	...	9	10	19	8	1	·04	·05	·05	1·38	6
263	143	53	211	254	930	852	1,782	216	295	2·14	2·18	2·16	·09	7
2	...	...	1	...	32	29	61	...	...	·10	·10	·10	·05	8
311	172	73	247	297	1,352	1,247	2,599	329	558	·67	·69	·68	·51	
321	179	84	249	317	1,431	1,314	2,745	332	561	·39	·40	·40	·34	

IMPERIAL STATEMENT No. IX.—Deaths registered from Fevers

Number.	Districts.				Circles of Registration.		Villages.		January.	February.	March.	April.	May.
					Number in each district.	Number from which deaths from fevers were reported.	Number in each district.	Number from which deaths from fevers were reported.					
1	2				3	4	5	6	7	8	9	10	11
SURMA VALLEY.													
1	Cachar	...	...	...	12	12	1,103	543	501	360	381	391	410
2	Sylhet	...	...	...	40	40	10,781	9,681	4,344	3,277	2,948	2,303	2,302
	Total	...	...	...	52	52	11,884	10,224	4,845	3,637	3,329	2,694	2,712
ASSAM VALLEY.													
3	Goalpara	...	...	...	22	22	2,137	2,913	1,640	1,251	1,466	1,591	1,793
4	Kamrup	...	...	...	15	14	1,954	1,000	978	689	819	801	969
5	Darrang	...	...	...	13	12	1,406	1,239	624	567	607	408	668
6	Nowgong	...	...	...	10	10	1,495	72*	447	440	475	496	582
7	Sibsagar	...	...	...	17	17	2,143	1,279	669	479	511	504	755
8	Lakhimpur	...	...	...	15	15	1,702	1,392	412	378	285	296	354
	Total	...	...	...	92	90	10,837	7,895	4,770	3,804	4,163	4,096	5,121
	Total for the Province	...	...	...	144	142	22,721	18,119	9,615	7,441	7,492	6,790	7,833

* Mauzas.

IMPERIAL STATEMENT No. X.—Deaths registered from

Number.	Districts.				Circles of Registration.		Villages.		January.	February.	March.	April.	May.	
					Number in each district.	Number from which deaths from dysentery and diarrhoea were reported.	Number in each district.	Number from which deaths from dysentery and diarrhoea were reported.						
1	2				3	4	5	6	7	8	9	10	11	
	SURMA VALLEY.													
1	Cachar	...	...	...	12	11	1,103	158	79	61	76	106	91
2	Sylhet	...	...	...	40	39	10,781	1,450	519	319	259	191	202
	Total				...	52	50	11,884	1,608	598	380	335	297	293
	ASSAM VALLEY													
3	Goalpara	...	...	...	22	21	2,137	122	11	8	11	21	31
4	Kamrup	...	...	...	15	14	1,954	112	23	18	23	21	58
5	Darrang	...	...	...	13	12	1,406	315	46	41	53	60	115
6	Nowgong	...	...	...	10	10	1,495	46*	20	10	9	19	27
7	Sibsagar	...	...	...	17	15	2,143	588	100	69	69	98	134
8	Lakhimpur	...	...	...	15	15	1,702	96	68	48	62	87	102
	Total				...	92	87	10,837	1,279	268	194	227	306	467
	Total for the Province...					144	137	22,721	2,887	866	574	562	603	760

* Mauzas.

in the districts of Assam during each month of the year 1925.

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
518	415	275	367	369	398	503	2,622	2,266	4,888	10·02	9·48	9·76	14·16	1
2,970	2,852	2,541	2,666	3,108	3,487	3,604	19,940	16,462	36,402	15·23	13·35	14·32	16·49	2
3,488	3,267	2,816	3,033	3,477	3,885	4,107	22,562	18,728	41,290	14·37	12·72	13·57	16·10	
2,033	1,732	1,472	1,241	1,751	1,834	1,846	10,990	8,660	19,650	27·03	24·33	25·77	26·71	3
1,151	1,150	891	854	798	895	868	5,882	4,981	10,863	14·80	13·63	14·24	16·15	4
746	644	429	623	532	662	687	3,828	3,369	7,197	15·14	15·00	15·07	15·38	5
616	562	536	417	494	479	427	3,309	2,662	5,971	15·85	14·06	15·00	17·11	6
770	801	679	825	636	715	606	4,228	3,722	7,950	9·74	9·56	9·65	10·50	7
402	355	481	448	517	614	552	2,738	2,356	5,094	8·75	8·61	8·68	9·97	8
5,718	5,244	4,488	4,408	4,728	5,199	4,986	30,975	25,750	56,725	15·39	14·32	14·88	16·09	
9,206	8,511	7,304	7,441	8,205	9,084	9,093	53,537	44,478	98,015	14·94	13·60	14·30	16·10	

Dysentery and Diarrhœa in the districts of Assam during each month of the year 1925.

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
93	72	54	59	75	56	67	457	432	889	1·74	1·81	1·78	2·24	1
216	210	161	214	314	318	309	1,750	1,482	3,232	1·33	1·20	1·27	1·42	2
309	282	215	273	389	374	376	2,207	1,914	4,121	1·40	1·30	1·35	1·55	
39	38	34	20	23	17	16	144	125	269	·35	·35	·35	·28	3
73	68	43	71	28	29	30	272	213	485	·68	·58	·64	·81	4
209	249	72	94	64	97	46	625	521	1,146	2·47	2·32	2·40	2·16	5
17	23	27	36	26	21	23	171	87	258	·82	·46	·65	·90	6
118	166	144	198	134	200	153	678	705	1,383	2·02	1·81	1·92	2·37	7
119	165	167	152	112	129	115	741	585	1,326	2·37	2·14	2·26	2·92	8
575	709	487	571	387	493	383	2,831	2,236	5,067	1·40	1·24	1·33	1·54	
884	991	702	844	776	867	759	5,038	4,150	9,188	1·40	1·27	1·34	1·55	

IMPERIAL STATEMENT No. XI.—Deaths registered from:

Number.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.
		Number in each district.	Number from which deaths from respiratory diseases were reported.	Number in each district.	Number from which deaths from respiratory diseases were reported.					
1	2	3	4	5	6	7	8	9	10	11
SURMA VALLEY.										
1	Cachar	12	11	1,103	105	86	82	76	82	64
2	Sylhet	40	40	10,781	535	167	182	118	86	100
	Total	52	51	11,884	640	253	264	194	168	164
ASSAM VALLEY.										
3	Goalpara	22	18	2,137	66	12	16	20	11	11
4	Kamrup	15	14	1,954	39	24	23	24	34	20
5	Darrang	13	11	1,406	156	86	81	67	41	30
6	Nowgong	10	9	1,495	26*	15	11	15	15	15
7	Sibsagar	17	14	2,143	190	76	80	74	65	86
8	Lakhimpur	15	14	1,702	47	124	132	107	93	107
	Total	92	80	10,837	524	337	348	307	259	269
	Total for the Province ...	144	131	22,721	1,164	590	612	501	427	433

*Mauzas.

IMPERIAL STATEMENT No. XII.—Deaths registered from Plague

Number.	Districts.	Circles of Registration.		Villages.		January.	February.	March.	April.	May.
		Number in each district.	Number from which deaths from plague were reported.	Number in each district.	Number from which deaths from plague were reported.					
1	2	3	4	5	6	7	8	9	10	11
SURMA VALLEY.										
1	Cachar	12	...	1,103	...	...	...	...	...	...
2	Sylhet	40	...	10,781	...	...	...	...	...	...
	Total	52	...	11,884	...	...	...	...	...	...
ASSAM VALLEY.										
3	Goalpara	22	...	2,137	...	...	...	...	...	...
4	Kamrup	15	...	1,954	...	...	...	...	...	...
5	Darrang	13	...	1,406	...	...	...	...	...	...
6	Nowgong... ..	10	...	1,495	...	...	...	...	...	...
7	Sibsagar	17	...	2,143	...	...	...	...	...	...
8	Lakhimpur	15	...	1,702	...	...	...	...	...	...
	Total	92	...	10,837	...	...	...	...	...	...
	Total for the Province ...	144	...	22,721	...	...	...	...	...	...

Respiratory diseases in the districts of Assam during each month of the year 1925.

June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 of previous five years.	Number.
							Male.	Female.	Total.	Male.	Female.	Total.		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
43	60	61	67	52	45	63	450	331	781	1.72	1.39	1.56	2.28	1
134	155	88	94	133	128	146	927	604	1,531	.70	.49	.60	.83	2
177	215	149	161	185	173	209	1,377	935	2,312	.88	.63	.76	1.07	
12	9	11	12	14	10	14	105	47	152	.25	.13	.19	.34	3
20	19	17	23	19	20	22	179	91	270	.45	.25	.35	.47	4
12	8	55	53	64	60	69	398	228	626	1.57	1.01	1.31	1.98	5
4	11	14	12	13	9	18	95	57	152	.45	.30	.38	.78	6
67	45	84	75	61	83	16	449	363	812	1.03	.93	.98	2.01	7
92	88	82	154	95	77	127	757	521	1,278	2.42	1.89	2.18	3.63	8
207	180	263	329	266	259	266	1,983	1,307	3,290	.98	.72	.86	1.48	
384	395	412	490	451	432	475	3,360	2,242	5,602	.93	.68	.81	1.30	

in the districts of Assam during each month of the year 1925.

[illegible]

APPENDIX II.

PROVINCIAL.

Statement showing details of registration in compulsory areas.

Compulsory registration area.			Population according to Census of 1921.	Estimated births at 286 per 1,000 married women between the ages of 15 and 40.	Number of births registered during the year.	Estimated birth-rate per mille.	Registered birth-rate per mille.	Number of deaths registered during the year.		Death-rate per mille.		Number of prosecutions under Act IV (B.C.) of 1873.	Number of convictions.
1	2	3	4	5	6	7	8	Including deaths in hos-pitals.	Excluding deaths in hos-pitals.	Including deaths in hos-pitals.	Excluding deaths in hos-pitals.	11	12
Silchar	10,204	Not available.	211	Not available.	20·68	142	92	13·92	9·02	...	...
Hailakandi	2,228		35		15·71	27	24	12·15	10·77	1	1
Sylhet	16,912		488		28·85	372	314	21·99	18·57	12	9
Karimganj	4,552		92		20·21	90	71	19·77	15·59	23	20
Maulvi Bazar	3,334		75		22·49	29	17	8·69	5·10	3	3
Habiganj	5,918		187		31·59	198	177	33·46	29·92	1	1
Sunamganj	4,881		152		31·14	124	114	25·40	23·35	18	15
Dhubri	6,707		243		36·22	186	145	27·73	21·62	34	32
Goalpara	6,212		199		32·03	130	120	20·92	19·31	20	17
Gauripur	4,311		149		34·56	121	121	28·07	23·07	46	45
Gauhati	16,480		484		29·37	485	323	29·42	19·60	16	11
Barpeta	11,730		656		55·92	321	308	27·36	26·26	13	10
Tezpur	7,341		214		29·15	226	185	30·78	25·20	28	20
Mangaldai	1,023		24		23·46	28	8	27·37	7·82	7	4
Nowgong	6,885		235		34·13	183	97	26·58	14·09	18	15
Sibsagar	5,329		170		31·90	110	80	20·64	15·01	10	1
Nazira	2,632		97		36·85	59	59	22·42	22·42	7	2
Jorhat	6,626		200		30·18	131	76	19·77	11·47	...	...
Golaghat	3,655		95		25·99	70	49	19·15	13·41	24	7
Dibrugarh	16,007		377		23·55	353	176	22·05	10·99	21	16
Doom Dooma	1,162		30		25·82	35	35	30·12	30·12	...	...
North Lakhimpur...	1,966		62		31·54	50	38	25·43	19·33	7	4
Tinsukia	3,080		70		22·73	55	55	17·85	17·85	13	11
Total	149,175		4,545		30·46	3,525	2,684	23·63	17·99	322	244

GOVERNMENT OF ASSAM.

The Governor and the Minister of Local Self-Government.

Resolution on the Annual Public Health Report of the Province of Assam for the year 1925.

Extract from the Proceedings of the Governor of Assam and the Minister of Local Self-Government in the Local Self-Government Department, Public Health Branch, No. 3841 L.S.-G., dated the 7th August 1926.

READ—

The Public Health Report for the year 1925.

RESOLUTION:

THE outstanding feature recorded in the Public Health Report for 1925 is the fall of the provincial death-rate to 22.52 per mille, or 4.78 less than the rate of 1924 and 6.82 less than that of the previous quinquennium. The Director of Public Health attributes this remarkable improvement, which is reflected in the statistics of mortality from all the principal diseases except small-pox, to better health conditions following the favourable climatic factors of the year and to the prosecution of the intensive campaign against *kala azar*.

The birth-rate fell from 31 to 29 per mille of the total population; but some decrease was to be expected in view of the higher death-rate of the year 1924, and the decreased birth-rate was accompanied by a welcome fall in the infantile death-rate, which had risen in the year 1924, to a rate lower than that of any of the preceding five years.

2. The death-rate on tea gardens was again considerably lower than the provincial rate, falling from 23.02 to 18.93 per mille, a tribute to the general sanitary conditions and to the supervision exercised by the tea industry on the estates. No deaths and very few cases of sickness occurred among immigrant labourers in transit.

3. There was no change in the agency employed for the collection and registration of vital statistics. The percentage of omissions detected in the course of checking by the vaccination inspecting staff indicates a slight improvement in registration in both urban and rural areas. Omissions in the Goalpara and Kamrup districts are however still very numerous.

4. The improvement in the mortality from the chief diseases did not extend to small-pox, which prevailed in severe epidemic form in the Sibsagar district. The opposition to vaccination in this district is considerable and it has been necessary to impose compulsion in several rural areas as well as in the towns.

5. In the course of the year sanction was accorded to the formation of two mobile epidemic units, each with a number of Sub-Assistant Surgeons and disinfectant carriers, to work under the supervision of the Assistant Director of Public Health. These units have fully justified their existence by the important part they played in staying the ravages of cholera which broke out in several districts and more particularly in Nowgong. In the Nowgong district the epidemic, spreading as it did all over the areas adjacent to the banks of the Kallang river the water of which was freely used by the villagers affected, was especially difficult to deal with. The principal measures adopted, in addition to actual treatment of patients, were the disinfection of water supplies, instruction of the people in the dangers of impure water and the inoculation of all possible contacts with anti-cholera vaccine. The Governor and his Minister have heard with satisfaction that people are taking more freely to inoculation. Normally the supply of medicines and vaccines for dealing with outbreaks of epidemic disease is a duty of local bodies, but the Government

will always be ready, in the case of a widespread epidemic such as that which occurred in Nowgong, to treat sympathetically requests for financial assistance for the purchase of vaccine.

6. Anti-malaria measures were continued at Pasighat, Lumding and Haflong and were undertaken for the first time at Kohima. Malaria was less prevalent in the province than in the previous year and sales of "quinine treatments" fell considerably. Provision has been made to reduce the cost of a treatment phial from nine to six annas and as the wholesale price charged by the Bengal Government factory has recently been reduced it is possible that a further reduction in the retail price can be made in the near future.

During the year the report of the Cinchona Enquiry Committee was received. The Committee has recommended areas in which cinchona might be grown and the Forest Department have been asked to plant a small experimental area. As the plant takes some eight years to come to maturity however the province, even if the experiment is successful, cannot be independent of outside sources of quinine supply for a considerable time.

7. The campaign against *kala azar* was continued with vigour. The staff employed was much the same as in the previous year but a new drug, *Urea stibamine*, was introduced for the treatment of a proportion of cases. As this drug requires only about one month, in place of the three months required for the Sodium antimony tartrate treatment, to effect a cure in normal cases, it is possible to treat a much greater number of patients than before with the same staff and hospital accommodation. The new drug is expensive but its efficacy has been proved, and its advantages are so obvious that the Government have had no hesitation in approving the Director's proposals for a very considerable extension of its use. The number of deaths recorded as due to *kala azar* rose by 780 to 6,365, but the greater part of the increase was due to extension of registration in the hill mauzas of the Garo Hills; moreover the recorded number of deaths classed under the general head "fevers", which undoubtedly includes a considerable proportion of *kala azar* cases, fell by over 15,000. There is little doubt, therefore, that the mortality from *kala azar* was actually less than that of the previous year.

The Director in his report observes that the number of cases of patients' stopping treatment before its completion is still very high. The Governor and his Minister trust that the measures of propaganda instituted by the Public Health Department with the aid of the Red Cross and the instructions issued to touring officers of all departments to explain the dangers of a too early stoppage of treatment will bear fruit in the coming year. They desire also to draw attention to the provisions of the rules recently republished under the Epidemic Diseases Act which provide for a Magistrate's order, where necessary, that a patient shall undergo a complete course of treatment.

The work of the *Kala azar* Commission continued throughout the year and important results have been obtained: the common sandfly has now been convicted as a host of the *kala azar* parasite and only proof of actual transmission by the bite of the sandfly is awaited.

8. The problem of the treatment of leprosy is one which would fall most properly to the Public Health Department. As the Public Health staff are fully occupied with other duties, however, and as treatment centres for leprosy will be attached to station hospitals and dispensaries, it has been found convenient for the Medical Department to deal with the problem. The measures taken and in contemplation by the Government for dealing with leprosy have been described in their recent Resolution on the report of the working of the dispensaries in Assam.

9. The charge of the Department was held by Major T. D. Murison, I.M.S., the permanent Director and, for a period during which Major Murison was on leave, by Major J. B. Hanafin, C.I.E., I.M.S. The Governor and his Minister congratulate these officers and their staff on a successful year's work. Their thanks are due also to Major Murison for his interesting report.

ORDER—Ordered that the Resolution be published in the *Assam Gazette*.

By order of the Government of Assam,

G. T. LLOYD,

Second Secretary to the Government of Assam.

